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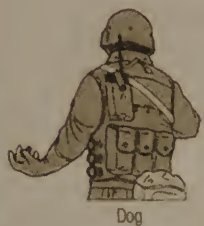


82

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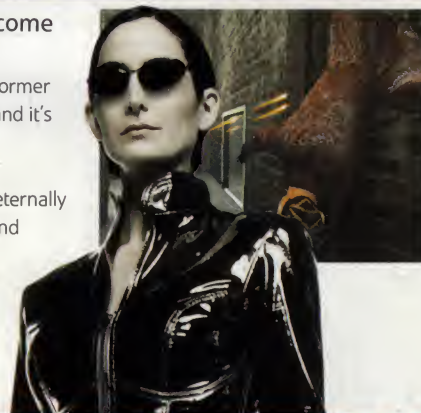
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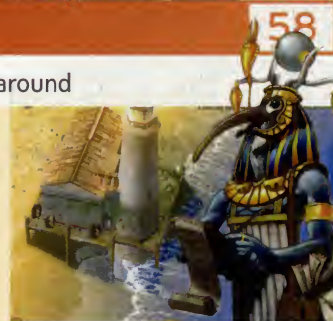


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And so we come to the issue of case modding. We here at PCPP have resisted championing the cause of case modding for a while now because the amount of time needed to seriously hot up a PC used to steal vital hours from gaming. Why should we be drilling holes all day when we could be instead running through the cool halls of Deus Ex?

But times they are a changing. Less than a year ago, getting decent kit for a case mod involved

writing to obscure companies in Taiwan or bothering the boys down at your local auto body shop. Recently however, the growing popularity of case modding has seen more than a few retailers begin to stock an incredible range of accessories for your PC.

Most of these retailers are still online at this stage, but since most of the products weigh much less than a kilo, the cost of having them shipped to wherever you may be is virtually negligible. You can get whatever you like, from the dependable coloured neon caselight to weird glowing cables, light-up case badges to special UV-sensitive paint that glows under blacklight (like your Dunlop Volleys in a disco).

And a case modding project now no longer need involve your toolshed and an industrial strength bandsaw and welding-torch. Many retailers supply cases with side window panels already fitted, not to mention extra fan holes, grilles aplenty, and detachable carry handles for ferrying your pride and joy to the local LAN, because these machines are designed to be showed off.

To this end, and to show you what a difference all this cool kit can make to a humble PC, we've done a very simple modding project of our own, to tie in with our massive Matrix preview. Yes, PCPP brings you THE MATRIX PC! It's an impressive beastie too, packing a P4 2.8GHz CPU and a Hercules Radeon 9700, arguably the most overclockable of the breed. Serious gaming power for serious gamers.

If you flip to page 84 you'll also see that we've tied our Matrix PC into

another oft-requested article: how to build your own machine. That's right, free yourself from the shackles of unscrupulous PC dealers with weird skin diseases and take control of your own destiny (as it were). Jere has written the article with his usual painstaking attention to detail, showing you step-by-step how to whack your baby together, and it doesn't just stop at tying off the IDE cables. He goes on to show you how best to complete a simple (but visually striking) mod, using the minimum of drilling, filing and self-electrocution.

So enjoy the Matrix PC, then subscribe to your favourite gaming mag for your chance to win it. That's right, you heard right, win it. You certainly can't say we don't love you!

A stylized signature of Anthony Fordham.

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Screenshot from Counterstrike

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INBOX

Lost his sticky things

I was shocked to find while buying the latest issue of PCPowerPlay (#80), to find that the little sticky thing holding the CD case was gone?. What is the world coming to with people stealing these little sticky things. You have to agree, those little sticky things are fun to stretch. I know you can't do anything about this, but to you people who steal the little things, you are sad people who haven't got anything better to do than steal our sticky things. Anyway, I better go play with my sticky thingy collection.

Brandt

What can we say? Some people are so low it's frightening. Sometimes, right, sometimes I walk

past a newsagent and I see people SNEEZE on the mag and then put it right back on the shelf! Upside down! So if you're an avid PCPP reader, next time you're at the newsagents, do everyone a favour and tidy up the pile of PCPPs there so they look all nice for the next potential buyer. Oh, and then go and wash your hands.

Bored easily

Don't you people ever get bored playing the same game, say Counter-Strike over and over? I mean come on do you have so little imagination that you don't think "Hmm I've been playing this for three weeks straight, I think I'll play something different. Maybe even a game that isn't even a FPS." Just wanted to ask you that.

alexmid

Hey listen alexmid, we'd LOVE the opportunity to sit and play the one game for three weeks straight but as it is we have to play up to twenty-five games in a two week period. Don't you just feel for us? Seriously though, I need to stop this now because it's Quake o'clock in the office, and the afternoon's Q3DM17 rampage is just beginning...



Actually loves us

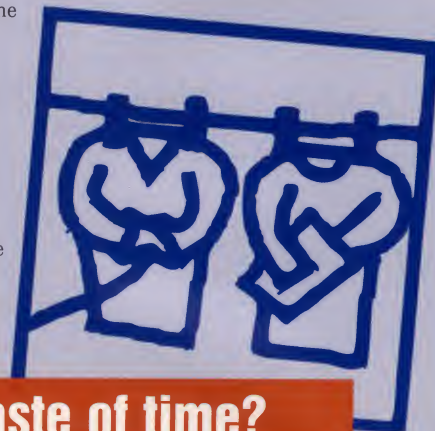
Hi to all at PC PowerPlay! Well it has finally happened! After 79 issues and over 100 coverdiscs I struck a dud. Following the instructions on the cover I returned the offending CD to those concerned. Maintaining PCPP's high standard, Mr Noone not only rang me to confirm it was a dud CD but had the replacement mailed to me within the week, Great stuff!

I have acquired every issue of your great 100% Australian mag since Duke Nukem graced the cover of the very first, have weathered the design changes and Xbox section and have found that PCPP is truly a magazine for the people! If I may suggest, Dr Claw

should get at least a full page each month. In any case, Mr Lawrence's return is the best move of the year and the reviews, oracle and setup sections are great. Keep up the good work guys.

mondo

See, these kinds of readers actually do exist. You can come down from out of the crawspace now Jere. What? You're stuck? Well I told you didn't



LETTER OF THE MONTH: Are games really a waste of time?

Something's bothering me a lot lately. People always tell me that computer games are for stupid people, they are shallow and are the only time that you are not using your brain. But most games require good attention to what the NPCs are saying, and games like Hitman 2 and Splinter Cell need quick thinking and on-the-spot tactics as well as following the storyline if you really want to enjoy the gaming experience. And so I decided to ignore the whingers for a while until one-day, I told my Mum that I had finished Return to Castle Wolfenstein and she said, "And what did you learn from it? Has it finished your homework? Have you acquired any knowledge from it?" I would have said that I had learned how to reload an FG42 Paratroop Rifle if I didn't know any

better, but what she said had got me thinking. I didn't really learn much, it definitely didn't finish my homework and it wasn't all that fun as I had played it on our ancient 450MHz lag-bag and the music sounded like a broken record. And so I'm unsure what to believe. Is PC gaming really all that or is it just a waste of time like Mum says?

id

Okay so we're going to go out on a limb here and guess that even though this correspondent's name is id, we're not actually talking to John Carmack, who in any case should be busy working on Doom 3, not fooling about playing games.

Seriously though, the question of whether or not games waste our lives is a hairy one. An easy

response is that yes, some games do indeed waste our time. Games like Heist, Mission Humanity and Largo Winch cause brain shutdown and a general disinterest in, well in life really. Others such as Counter-Strike exist in more of a grey area. Studies show that playing FPS games can improve hand-eye co-ordination, situational awareness and fine motor skills. But naturally, as the saying goes, too much of a good thing leaves one palsied and riddled with RSI, muscle strain and of course that old friend to the hardcore gamer, obesity.

Do we learn anything from our games? Well, probably not that much, not even from such cerebral experiences as Civilisation and Deus Ex, beyond learning how to

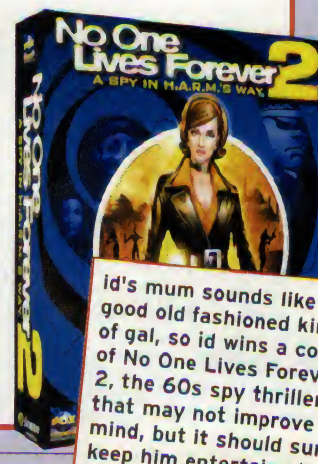
play these games that is. But they should certainly improve such things as lateral thinking and repetitious problem solving.

But why do games have to be a learning experience anyway? I went and saw Austin Powers in Goldmember the other day and all I learnt was that indeed it does seem possible to be able to make a new movie based entirely around jokes from an old movie. But no one was EXPECTING me to learn anything from that movie, or any other movie really.

The difference with games though is that our play sessions often last a good deal longer than an hour and a half. Seven hours straight doing little more than entertaining yourself

could be considered a less than stellar use of your brain's resources. So I dunno, maybe cut down a bit?

On the other hand, if you get hassled by parents/partner/pets/police just remark offhandedly that at least you're not watching television.



id's mum sounds like a good old fashioned kind of gal, so id wins a copy of No One Lives Forever 2, the 60s spy thriller that may not improve his mind, but it should sure keep him entertained.

I? Didn't I tell you? Don't worry we'll run a few feet of UTP up there and stuff a P4 3GHz up the other end, you'll be right.

Freaked out by system reqs

Has Doom 3 got too high specs? What about Battlefield 1942 (PCPP#80), or Duke Nukem Forever? Now what normal person is able to afford those specs (apart from Bill Gates) and those graphics cards you need that cost about \$900? Now who has that kind of money to throw around? Wow Battlefield 1942 wants a P4-2.50GHz 512MB RAM, GeForce 4 and 900MB HDD and you're telling me that I have to buy all that if I want to play? Our CPUs are going to be up to 3.2GHz before the end of the year, look at the way were advancing! The Beast (very good idea) is what I flip to as soon as I see the new PCPP mag and I'm wondering about this Water Cooling Kit? Now why would you have water near your computer anyway, if that's what it has in it? And the 2GB RDRAM for \$2500 (damn that's fast), I could buy a computer for that price, but if I'm gonna buy a super new computer it would be already outdated as soon as I turned it on. Are we advancing too fast in technology?

Rik "Pagan" Perry

Seems like Postal 2 would get boring, how many times can you shove a gun up a cat's arse before you start yawning?

Blargh! Talk about info dump. We're glad you could get all that off your chest Pagan, and believe us, we feel your pain. But let's step back and see if we can't get a little perspective here. A friend of mine bought an XT back in the day, running at a spectacular 8MHz, with 640k of memory, a 5 1/4 inch drive, a keyboard and a 14" four-colour monitor, and it cost him \$5500. Sure, he got ripped off, but the fact is that cutting-edge PCs have ALWAYS been stupidly expensive. And that old chestnut Moore's Law says that even though processor speed will double every 18 months, the price will remain the same.

So the sad fact is that PCs today aren't any more expensive than they ever used to be, in fact on average they are about

ages that has caused serious strain to even the GeForce4 Ti4600 based PCs here in the PCPP offices. You think you've got problems upgrading one PC Pagan? Here at PowerPlay, we're starting to have to look at upgrading five!

Thinks Crazy Taxi is rubbish

I have just purchased your latest mag, and immediately installed and played the Crazy Taxi demo (for about five minutes) before removing it permanently. This console conversion displays all the signs of being the worst console port I have ever seen. I once played around with this on the console for a few brief minutes, and my impressions were favourable, given a good conversion it would

make a fairly nice PC game. But oh the pain.

The controls, the start button! "A" why? The other controls (what other controls?) are as bad. I have a force feedback steering wheel, no support. Joystick? No support. Mouse? No support. Direct Neural Interface? No support. I mean the mouse didn't even work in the menu! The install menus weren't properly supported, being unreadable garbage on my machine. If this is the best they can do I don't think the game is going to sell at all. Don't these people realise that there is a whole new interface available on the PC and that we have more than three buttons on the keyboard?

Steve

Alas the problem of console ports is a constant one. For every Abe's Oddysee there seem to be six or seven Evil Twins, all displaying menu screens with "Press Start" unashamedly plastered all over them. The real question is why do companies bother with console ports? And the real answer is that they really, really want to wring as much cash out of a successful title as they possibly can. I give you, Resident Evil for PC. I give you Metal Gear Solid for PC. Hey, at least we don't have to deal with some of the stuff the GBA has to live with, like the Game & Watch Gallery - use your state-of-the-art portable gaming system to emulate LCD microcontroller games with less computing power than the modern wristwatch!

Anyone who understands this last post, please write to the usual address so we can too.



Hop in for Green Beret Love!



FROM THE FORUMS

POSTAL 2 WORTH YOUR TIME?

Join the debate! www.pcppowerplay.com.au/forums

Upcoming shock-game Postal 2 gives players the opportunity to burn pregnant women with flamethrowers and shoot grannies in an orgiastic indulgence of humanity's basest nature. But do the kids want it? The usual suspects on the PCPP Forums weighed in on the issue, and the response was most interesting indeed...

Date Posted: Oct/22/2002 11:31 AM

Just wondering - Postal 2 is supposed to be out by Christmas but given GTA3 and BMX XXX got refused classification I really wonder/doubt if it will be commercially available to buy off a shelf from a major store (EB or Harvey Norman for instance) in Australia. I hazard a guess that even if the developers of Postal 2 get someone to publish the game here, it will also fail to be classified by the OFLCA. So given this: 1) Would you be interested in buying it if it is released commercially in Australia? 2) If it ain't are you likely to try to pick it up through 'warez' channels?

Veefy, MIB

Date Posted: Oct/22/2002 12:14 PM

No and no, not because its too violent or politically incorrect or gives a bad message to children etc etc etc but because *drum roll* ...the game looks crap! B-grade games don't do it for me!

Harnet, Tiefeling

Date Posted: Oct/22/2002 4:42 PM

I'd buy it if it came out just because of the fact that its something different. I wouldn't download it though.

Wookies_Unite, Tiefeling

Date Posted: Oct/22/2002 6:15 PM

Hell no. It's a disgusting game and I don't think anyone should support Running With Scissors, who only sell games because of controversy. Add to that the fact that the graphics look absolutely terrible and the gameplay (judging from the movie I've seen) is piss poor. Add to that, this game consists of going around a few maps and killing innocent people. Seems like it would get boring after about 3 minutes or so. How many times can you shove a gun up a cat's arse before you start yawning? And I don't think this game is something different at all. You can kill innocent people in GTA3 as well, but the saving grace for GTA3 is that there's actually a good game under the violence.

Random, Guardian

Date Posted: Oct/22/2002 6:20 PM

Nope. "Shock Value" doesn't factor into making gaming purchases. I'm a little bit past the "OMFG!!!!11!! I R s0 fuk3n k3wl I pl4y g4m3 my p4r3nts w0nt like!!!!11!!!!11 3m1n3m is t3h \$1ckz0rzzzz" Plus I think Vince Desi is a fucking idiot. At least games like Carmageddon and GTA3 have gameplay value to go along with their controversy.

Section8, Overmind

Date Posted: Oct/23/2002 12:32 AM

Oh yeah right, a bunch of gamers getting moral about violence, blow that! So the violence matters less if it plays effectively? What, psychotic violence is OK if I enjoy it?! So you're a meticulous sicko, big woop! Just get into it... "We put them behind bars. But we still can't control them. Got to scatter Jigsaw's pieces. Make the system right!" The Punisher holds no sophistry in his motions... oh god yes.

chris, Grunt







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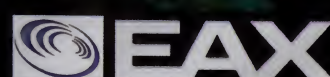
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Platoon

Developer: Digital Reality ■ Publisher: Strategy First ■ Distributor: TBA ■ Due: Beginning of 2003

A classic 80s movie finally done justice



Man vs APC,
the eternal
conflict



I guess another
bean gag would be
inappropriate at
this point

There's no Rambo, John Wayne
or Chuck Norris to be seen in this
one, it's a serious war game.

Why Platoon Deserves a Second Look:

Uses the amazing Walker
(of Haegemonia fame)
graphics engine

Treats the subject
matter seriously

Squad-based tactical
gameplay

Realistic
geography and
missions



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microsoft.com/games/ageofmythology



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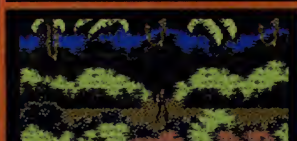
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Rivers of blood!
Bridges of steel!
Mosquitos of malaria!

RETRO PLATOON

This isn't the first time that the movie *Platoon* has been given the game treatment. *Platoon: The Game* was released in 1986 (the same year as the movie) for the Atari ST, Commodore 64, and Commodore Amiga. The gameplay involved the very taxing task of scrolling horizontally left or right, jumping over tripwires and dispatching enemies with one bullet. What? You don't remember 1986? Feast your eyes on these awesome 16-colour screenshots!



To date, most games about the Vietnam War have been less than stellar affairs that didn't always treat the subject matter with the respect it deserved. Take *Vietnam 2 - Special Assignment* for example which has been referred to as "Serious Sam in Vietnam". Sure we have WWII FPSs but to the credit of developers, these titles have so far managed to respectfully convey the sense of hopelessness and fear associated with war.

It was Oliver Stone who in 1986 did an excellent job making a movie called *Platoon* that straddled the line between entertainment, respect for the subject matter and cold authenticity thrown in to remind all of the horrors of this conflict. Sixteen years on his movie is still affecting the public and this time it's Digital Reality, the same people responsible for *Haegemonia* that are attempting to bring the movie to the world of video games once again.

Tactical Simulation

Platoon represents a resurgence of tactical type games that were popular right before Westwood changed the world with its unique RTS style of gaming with *Dune II*. Although this is an official movie license, the characters and missions of the game will not be derived from the movie. Instead, you must oversee multiple squads and specialists while keeping your on-screen protagonist Sgt. Martin Lionsdale alive.

Besides troops to command, in most scenarios you will be given vehicle assistance in the form of APCs or M48 Patton tanks among others. APCs are obviously quite handy for their ability to move you and the squad to your destination quite quickly and off-map artillery and air strikes are also available in certain missions to aid your success. There's plenty of variety in the tasks you need to perform but a C&C style shrouded play area means that they all start with sending out the recon guys to assess the area and situation.

Looking Good

Graphically *Platoon* will be very realistic as thousands of recon, aerial and other photographs were used in the in the generation of the terrain, plant life and static objects such as villages and shrines. Using the proprietary Walker engine as seen in the amazing *Haegemonia*, *Platoon* will be fully 3D with highly detailed soldiers, vehicles and weapons.

Realism is another factor that Digital Reality wants to feature heavily. A wounded soldier will develop a noticeable limp and different types of terrain offer different types of cover. Hiding in thick foliage increases defence by 50% while standing on an open road decreases it by 25%. The player will also have to manage other units and adding the common RPG element seen in most games of today, your soldiers will gain experience and increase in skill the longer they survive.

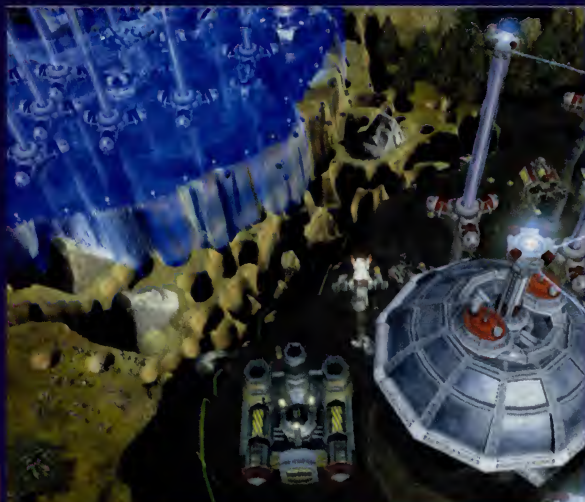
There's no Rambo, John Wayne or even Chuck Norris to be seen in this game. Receiving the full *Platoon* license, this is a serious wargame that reinforces the horror of the Vietnam conflict and all wars with its sobering message regarding the preservation of life.

Jere Lawrence

Perimeter

Developer: KD Lab ■ Publisher: 1C Company ■ Distributor: TBA ■ Due: Q1 2003

Trust the Russians to come up with something this crazy



There's was a game in the 2001 PCPP Top 100 that only scored 53%. Bizarre, you may think, but this game was something that didn't fit well with our ordinary way of reviewing things. It was a game that demanded you learn a whole new language before you could even begin to play it properly, a game that asked you to set aside all your preconceptions of how a computer game worked. It was a game called Vangers, and it still sits within my personal Top 20 as one of the most original and fulfilling gaming experiences I've ever had.

The company responsible for Vangers, KD Labs, is Russian. Despite not enjoying a thriving development industry like the US or even like Australia, they've battled on through financial insolvency and the

occasional coup and are now nearing completion on their opus: Perimeter.

It's an RTS, sort of

Like Vangers, at first glance you might think you recognise Perimeter, and then on second glance you realise you have no idea what the hell is going on in any of the screenshots. This is because KD Labs likes to set its games in incredibly alien worlds. Perimeter, like Vangers, is set actually INSIDE hyperspace, on tiny self-contained worlds that are - get ready for this - generated by human consciousness. Because humans 'dream' these worlds are of course somewhat nightmarish, populated by bizarre monsters, and even the terrain is



Advance men!
Attack the...
blue shiny thing



Get the Baygon
dear, it's moth
season



Why Perimeter Deserves a Second Look:

Excitingly original
concept and execution

Refreshing take on tired
RTS genre

Crazy beautiful graphics
and deformable
landscape

Don't just fight robots,
fight your nightmares
as well!





hostile, throwing up hills or opening great chasms in an instant. Suffice it to say that Earth is a write off, and a great Exodus is travelling through this chain of hyperworlds to find a new home. And the player leads the journey.

KD Labs' principal aim in the development of Perimeter has been to create something that is refreshingly different yet not so alien as to be actually alienating. This was the essential problem with Vangers - unless you were a particular kind of person there's no way you were ever going to get into it.

So Perimeter combines traditional RTS concepts - units, grouping, clicking on objects to attack or work with them, base building - with the more Vangers-like wackiness KD Labs is famous for.

Real Terraforming Strategy

Perimeter uses a next-generation version of Vangers' pseudovoxel terrain engine. This allows for extremely organic landscapes that can be changed and deformed on the fly. The level of geometric detail in the landscape is also remarkably high, and objects such as ruins, giant statues and even the famous 'Mars face' can be rendered as part of the map, not as 'stuck on' polygon objects.

Because of the realtime terrain

morphing capabilities of the engine, the focus of the game is to select a territory and then terraform it - similar to the way it was necessary to put down concrete slabs in Dune 2, but much more dynamic. Then, the player must build structures in order to erect a giant shield, the eponymous Perimeter.

You can expect to be attacked not only by rival Exodus factions and their hordes of nanotech evolve-on-the-fly battle robots, but also by wave upon wave of nightmarish swarm creatures generated by your own actions on the battlefield. Energy collection is also much more a function of how the base is terraformed, and much less about plonking down next to specific resource points.

Dali eat your heart out

Finally, apart from having an excitingly intriguing gameplay dynamic, Perimeter has visuals that are truly original. Rarely do we see a game where it's not instantly and disappointingly obvious what's happening in the screenshots, but Perimeter is such a game. What are those columns of blue light? How significant are the giant faces in the landscape? What do those buildings actually do? We'll have to wait and see, but rest assured, this isn't the last you've heard of Perimeter.

Anthony Fordham

Follow a Legend



AGE of MYTHOLOGY™

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ENSEMBLE STUDIOS

Microsoft game studios



He's a lover, not a fighter

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GAMENEWS

HEADLINES: Dolby meets PC ■ Greeks VS EU ■ Vivendi set to float ■ Aussies censor BMX ■ Myst goes massive multiplayer ■ GeForce 4 becomes portable ■ Everquest money matters ■ New take on horror genre

EVOLVERS BOLDLY GOES FORTH

Next Generation Massively Multiplayer TV

Evolvers is a massively multiplayer game with a difference: a TV tie-in. This is no mere advert or crossover promotion but TV series that works as an extension of the game. This piece of convergent technology is being developed at the UltraPrime Network, a new multimedia entertainment studio with a lot of Hollywood background.

The dream is to have a massively multiplayer game where the TV show becomes a window to the world and players can affect what happens in the show and even change it during the real-time broadcasts.

The president and founder of UltraPrime is Neal Wiser. His past credits include co-writing several episodes of ABC's (that's the American version) *The Marshal* and work in the Warner Bros art department for *Space Jam* as well as project development of Qwest Communication's Internet Solution division.

Brave move

He says that this move is in response to his experiences with games based on TV shows: he'd play them, they'd be bad, and the show would run along merrily without even a nod to the game or the world created there.

This project will be different. It will allow players to share the world of the show, see the characters and actually participate. We know the game will be synchronised to the TV show so players can react to events in the show in realtime but UltraPrime hasn't let on how the show will react to the players - but the potential is staggering. Imagine the pull of a game where you could build your character to a point where you could get a guest role, or if a secondary character was annoying you too much, you could get rid of them.

To make it work would take some serious talent; luckily, UltraPrime has producers, screenwriters and special effects people who can list such sci-fi shows as these on their resumes: *Twilight Zone*, *Star Trek: TNG*, *Max Headroom*, *Stargate SG-1*, *The Outer Limits* and *Farscape* as well as *The Hollowman* and *Fifth Element* movies.

New World

Evolvers is set in a world where technology advances so fast that it's wildly out of control. Virtual and real worlds blur at the edges in a giant cyber wreckage.

The game will feature multiple worlds, be action oriented, have land-based and ship-to-ship combat, shifting alliance power bases and mission-based play. Wise says that although some players will just play to participate in the TV show, the real focus of the game will be managing assets, building a power base, gathering information, developing skills, and taking on other players.

Players will be able to customise their characters to a high degree (as well as being able to evolve them into higher life forms) and there will be a constant influx of new aliens as the TV show introduces them. New modules will be released to coincide with TV sweeps periods.

UltraPrime is looking for development partners as we speak to develop the actual game and UltraPrime hope to have the game go into beta mid next year. This isn't to say that *Evolvers* is a pie-in-the-sky project that just exists on paper, it has been in tech development for a year and the technology to link the game to the TV show has already been developed and is ready to roll. Stay tuned.



C-3PO and Jar-Jar's grandmother: forbidden alien love



The Ashes side's new uniforms fooled nobody, especially not the English

SURROUNDING SOUND

Dolby Lines up PC Market

Dolby, best known for its work in theatre Surround Sound, has released a software package to bring the joys of surround sound to even the most average speaker set up.

Dolby Virtual Speaker is designed to trick the ear into hearing 5.1 surround sound with just two speakers.

Players will hear two speakers behind, one directly in front, and subwoofer bass, in addition to the two actual speakers. Lord knows how much processing power this will need from your PC but it sounds great for people with limited space or funds for PC speaker set-ups.

Dolby is serious about its move into home computers, and is highlighting its role in Windows Media Player and as a part of the Windows XP Media Centre. If you believe Dolby, you need this surround for movies, games and even the latest audio files.



NO GAMES FOR YOU 3

Greek Government versus EU

For the last two months we've been reporting the Greek government's banning of all computer games in an attempt to target Internet gambling. Now it would seem that the law not only breaks the bounds of common sense but might also infringe on European Union law.

An official letter from the European Commission has reportedly been sent to the Greek Foreign Ministry. This could be the first step towards a summons to the EU Court of Justice. The letter says that the law breaches the EU's Article 28 as it restricts imports from EU member countries.

A second charge is that the law violates the principles of proportionality, which means a state's legislative responses need to be reasonable given the situation.

Although the law bans games in public and private places the Government has issued assurances that the ban would only be enforced in the public sphere and that the blanket ban was merely to help enforce the anti-gambling laws (as previous anti-Internet gambling legislation has been too vague and difficult to enforce).

Under EU law, blanket measures to help ease tricky enforcement has not been seen as justification for such measures.

The EU has demanded a response within two months. If the Greek government fails to sway the EU Court of Justice - in other words, convince them that it's not drastic overkill to ban all games, even those purely for pleasure, to crack down on Internet gambling - the EU executive could issue a "reasoned opinion".

This might not sound too scary, but, if after this, the Greek lawmakers don't amend their handiwork, they will face legal action before the European Court.



Central Taiwan: Another man has died after playing too hard at an Internet Cafe. After 32 hours of play the 27-year-old Taiwanese man collapsed. The police say that he died from exhaustion after remaining in the same position too long. Last month we reported a similar incident when 24-year-old South Korean man died after an 86-hour stint. Go hard or go home - there's a choice there.

Unleash the wrath of the Gods



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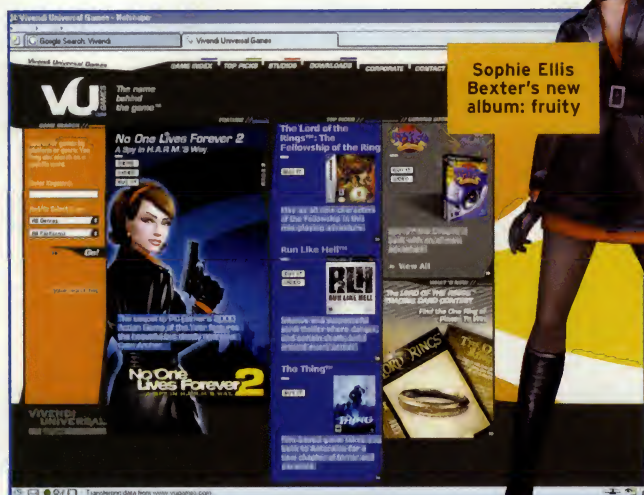
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VIVENDI GAMES FLOAT

Troubled Publisher Goes Public

After several recent billion-euro losses there has been talk that beleaguered entertainment supergiant Vivendi would sell its game interests which include Vivendi Universal Interactive (which just picked up the Marvel Comic license), Blizzard (makers of the WarCraft and Diablo series) and Sierra (Half-Life, Tribes). Instead, the company has announced

that it will float its games division on the NASDAQ, early in 2003 to raise the required cash. With such big-name developers under Vivendi's belt, the strong licenses they own and great sales predicted over the Christmas season, Vivendi games should be a strong performer on the stock market. But we'll let other folks do the buying for now...



Sophie Ellis Bexter's new album: fruity

BYTE SIZE

PC GLASS

Sharp has unveiled technology that allows circuits to be printed right into glass, allowing screens to function as computers. In the process the glass replaces silicon in the chip and Sharp has some big plans for hand-held devices such as "display cards", touch screens, games and navigational aids. Sharp is currently the world's biggest producer of LCD screens and hopes that the new technology will start appearing in items around 2005.

Old Man Boile's senility continued to worsen



EVERQUEST ECONOMICS

Inflation Grips the World of Norrath

BYTE SIZE

ISUN POWER

When you're deep in the outback and you find yourself miles from the nearest battery shop, that's where iSun comes in. Maybe you need to power your GPS to find the shop, or just play GameBoy Advance. The iSun is a foldout solar power panel which can be used to power a mobile phone for up to two hours. It's about the size of a paperback when folded up and five of the little fellas can be linked for greater power supply.

GM clams: surprisingly tasty



Macros in EverQuest have lead to tireless EQ avatars working 24-7 to produce cash for unscrupulous players who just sit back and leave their computers on, making small profits over and over. Once you have enough characters collecting enough cash then you hit the online auctions.

It's been estimated that 3 million platinum pieces are available for sale on one eBay server alone. Understandably, this has lead to an inflation problem, where about US\$350 translates to \$100,000 platinum pieces (which is quite a fortune).

Since Everquest money is now worth real money, new players are beginning to find it difficult to buy anything in the game other than basic items, as players who craft more powerful items charge ridiculous platinum piece prices in order to meet the PP's 'real world' value in US dollars.

In response, Verant is cracking down on people it finds using moneymaking macros, suspending accounts and confiscating items.

AUSSIE NET CATCHES CASH

Internet Business Not So Glum

Although personal web connections fell recently and broadband in Australia is dragging its feet, a report by Allen Consulting Group, sponsored by Cisco, shows that Internet business has life yet.

According to the study, the proportion of GDP revenue for 2001-2002 outstripped the forecasts made even before the dot.com crashes.

The group surveyed 600 businesses and from that information made some estimates that online-based revenues sucked in \$43 billion or about 6.4% of the national GDP.

They also found that there is a correlation between broadband access and revenue per employee.

One of the most interesting findings was the uptake rate of Internet banking amongst businesses was more than 70%, which is almost twice that of the US.



MCA's new exhibitions continued to shock

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Coffins for Kittens: tasteless

BYTE SIZE

FLYING MOUSE

Tilt controllers have been around for a while but not tilt controllers like this. The Ultra Cordless Optical Mouse from Gyration functions as a normal wireless mouse while it's on the desk but then switches to gyroscopic control when it's picked up. You move the cursor by tilting the mouse in the air and it's good for up to eight metres - if you can still see the cursor. Could be interesting for games - pushing forward to walk ahead, tilting side to side to turn, and even if that's a bust it'll still double as a handy remote when you're too lazy to leave the couch.

K9's pup menaced the Cybermen





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BYTE SIZE

AUTONOMICS

IBM has established an Autonomic Computing Group with the goal of producing computers and software that can monitor their own performance (through self-diagnostics) and take steps to make sure that it is working in an optimal way. IBM wants to have the computer automatically detect problems, fix them and then recover in the best way possible, without the utility going offline, as well as redistributing resources on the fly to deal with such

Overlord of the Yo-Yos plotted cruel revenge



HAL 9000

things as cyclic spikes in demand. So it's out with blue screens and in with HAL.

CENSORSHIP AUSSIE STYLE

Sex Stops Sales



The Australian Office of Film and Literature Classification made its gaming presence felt last year when Rockstar released Grand Theft Auto 3. The stealing and blowing up of cop cars and ambulances and killing the drivers was fantastical enough to be let past, but sleeping with a prostitute and then murdering her to get the money back was considered somewhat beyond the pale.

The game's sequel Vice City is set to cause similar troubles. It too has prostitutes which are likely to be removed

for the Australian release so that it can receive a rating and be legally sold in Australian shops.

BMX XXX has also run into troubles here, copping an RC. RC means the game has been refused classification because it does not fall within the MA15+ or below bracket and Australia currently has no R18+ classification.

BMX XXX is a game based around some freestyle BMX gameplay but mainly high-street-cred swearing, smut and sexual innuendo. It's all about the seedy (fun) side of extreme sports - like sex, drugs and rock'n roll with comedy writers brought in to give it zing. It's definitely mature content but nothing you won't see on the Sopranos.

It is yet to be seen if Acclaim modifies the game to get an MA15+ tag or whether they deem the offensive elements too central to the game to bother. The game is on sale in the US, although some retailers are choosing not to stock it.

MISTY EYED MMORPG

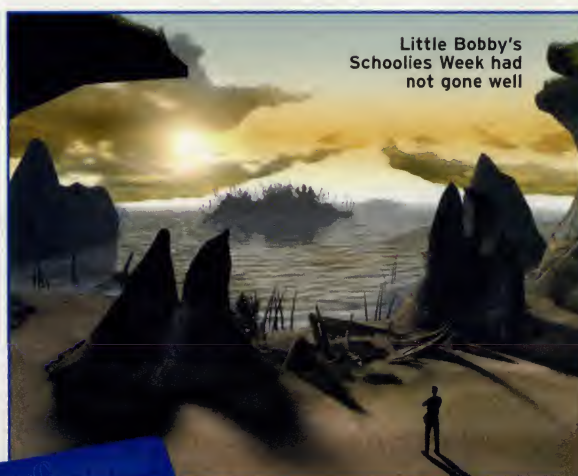
Myst Goes Massive

The makers of the massively popular Myst series are planning to go massively multiplayer. The Myst series involves exploring large beautiful, but static, pre-rendered worlds, puzzle solving and a bizarre plotline.

Now players will be able to band together for the Myst experience. There will be no power levelling (no levels at all, in fact), no statistics, and no player

competition. It's all about seeing the world(s) and sharing the experience.

There will be a multitude of Ages (areas to explore) and Cyan Worlds is looking to add content daily and add new ages every month. Myst online is an ambitious project and interesting because it moves so far away from the established EverQuest MMORPG genre. We'll let you know how it goes.



Little Bobby's Schoolies Week had not gone well

EXTINCTION

Man and Dinosaur Meet



Humphrey's rowdy nephews were here to stay



Cadbury's new selection: plasticity

An archaeological dig finds human and dinosaur bones together, suggesting for the first time that they may have co-existed sometime in the past. More curiously, it finds two types of man; one lightly built with a big brain cavity and the other bigger, stronger and more aggressive. Did one side wipe out the other? Could they actually have trained the dinosaurs? Extinction lets you decide. Rival Interactive (best known for Real War) drops players into the action with a choice of race as well as units including warriors, healers, hunters and dinosaur handlers.

Players will battle through a large branching mission tree, allowing you to choose the field of conflict. It will also be necessary to adapt the tribe to the hostile environments as well as battle, capture and raise war-dinosaurs to get not so much medieval as actually prehistoric on your foes. Look for Extinction in 2004.

BYTE SIZE

MOUSE DESIGN

Anime big guns are taking a crack at bringing their trademark style to the humble PC mouse. Masamune Shiro of Ghost in the Shell fame and Hajime Katoki of Gundam have agreed to pit their design skills against the boredom of the standard mouse. The special edition optical mice will come in three colours (black, silver and white), feature an insert with an interview with the designer and should be hitting Japan about the time you read this.

Akira's nob was a hit on eBay



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The Nation GAME PLANS!

A new ISP has begun operation in Australia. Promoted as a Gaming ISP, "GISP" the company is positioning itself to service the growing market for gamers over the internet. Players of Multiplayer capable games over the internet.

Multiplayer gaming is a huge hit in Australia with thousands streaming "online" to their favourite servers for some "fragging" fun.

Already OzForces has a large, constantly growing network of public "Game Server Rental" options. Australia's first "Game Server Rental" options. OzForces realises that gamers do not live by servers alone and so have a well established network of "OzSites" covering all aspects of the gaming culture (www.ozgn.com).

This network is tied to the bulletin board or forum system called ozforums.com where 15,000 registered members post news, chat and make friends everyday.

OzForces Internet is a locally owned company started by a group of gaming enthusiasts who know the games and the culture surrounding them. To check out the plans and their instant online signups visit their website at www.ozforces.com or call them on the nationwide number 1300 134 081.

Our servers have the most popular online games installed and are under 24/7 surveillance by our experienced administrators. Since our official ISP on 17th July 2002, OzForces has become a "force" to be reckoned with.



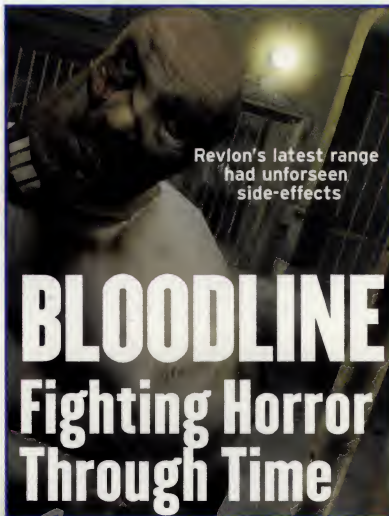
BYTE SIZE

LASER DEFENCE

Apparently US defence companies have been quietly working away on laser projects for the past few years and now they are much closer to science fact than science fiction. By the end of the decade we are likely to see them pressed into military service and Lockheed Martin is seriously considering altering its designs for its next generation fighter, the Joint Strike Fighter, to carry a 100-watt solid-state laser for missile defence. The Navy is looking at laser point defence for its ships and the army is talking about them for Humvees and tanks.



Calista's Beer Goggles worked perfectly



Revlon's latest range had unforeseen side-effects

BLOODLINE
Fighting Horror Through Time

Czech developer Zima Software has a new take on the horror genre. You play a young lawyer, Jim Card, trying to make his career off the back of a multiple-murder case defending a Dr Brown. Brown stipulates an unusual condition before he accepts the young lawyer - he wants to place him under hypnosis. Being eager, the lawyer accepts and finds himself three days back in time at the Sanatorium just before the murders take place. Brown is setting him up, in some mind-bending and supernatural way. To get out of this Jim Card will have to go back in time along Dr Brown's evil and cursed bloodline. Players will travel down four time zones and will have to fight a menagerie of horror creatures with whatever is available - pipes, scalpels, loose floor tiles as well as the odd shotgun. Bloodline is still in early development, look for it late 2003.

GAMES ON THE GO
GeForce4 Goes Portable

nVidia has released details about its GeForce4 460 Go chipset. It is optimised for graphics and DVD and video playback and uses a technology that nVidia has dubbed "PowerMizer". If you hadn't guessed, the GeForce4 460 is aimed squarely at making laptops a viable gaming platform.

nVidia promises more bang for your watt than any other graphics processor, while also providing competitive gaming grunt with 64Mb of DDR VRAM making it the most graphically powerful laptop GPU on the market. Currently, the chip is debuting in the Toshiba Satellite 5205-S70s notebook. With a 2.0Ghz P4, 512Mb DDR RAM, at 1600x1200, this baby will handle all your gaming needs - at least for a month or two.



Videophone revealed new horrors

BYTE SIZE

TEENY CPU



IBM has developed what could be the world's smallest computer processor. It uses carbon monoxide atoms lined up in a precise pattern on a copper plate as a circuit, which work via a cascade effect where the monoxide atoms are set into motion in the same way a single domino will start a large precise pattern to fall into place. IBM says that these circuits are 260,000 times smaller than those used in the most advanced semi-conductors being made at the moment, although the research is still in its infancy and it remains to be seen if it will grow into something useful.

APOCALYPSE
Divinity Gets Nasty

The Four Horsemen of the Apocalypse are coming and only three people have the power to stop them. Unfortunately, the three chosen ones have no idea about their destiny while the horsemen have all the cliff notes. You're the angel who has to save the world, and the chosen three are a corrupt politician, a prostitute and a serial killer - at least the first two probably already have a working relationship.

The game features the artistry of Simon Bisley (2000AD's Slaine, Lobo, Batman vs Judge Dredd), and the voice talent of Lance Henriksen (Millennium, Aliens), Tim Curry (Rocky Horror) and Traci Lords (Blade, Profiler and, er, adult movies).

BYTE SIZE

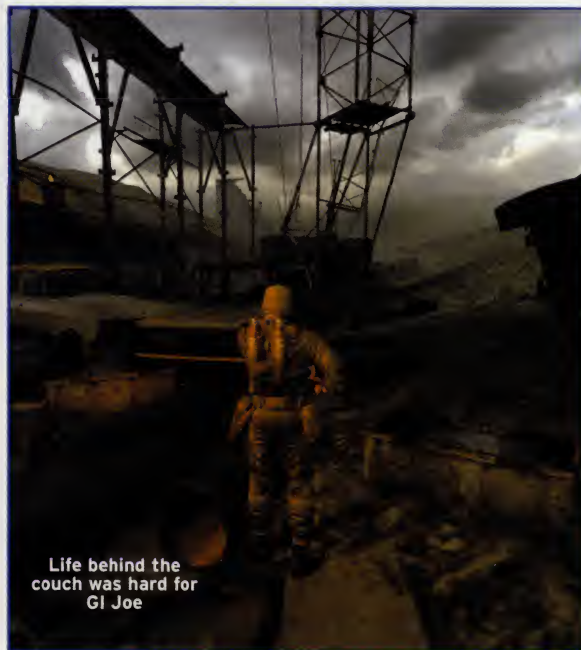
PHONE MOVIES

Philips has been working on a new optical disk that will allow devices as small as mobile phones to store and play up to two DVDs. The optical disk named Small Form Factor Optical (SFFO) is only 3cm in diameter and holds a Gigabyte of information on each side, but the dual layer technology used in DVD will double total capacity to four gigs. The player for the disk is tiny too, being only 0.5cm thick by 5.6cm long and 3.4cm wide. The disk uses new blue laser technology, to record, erase and re-record data.



R2 was delighted to learn it was a boy

STALKER: OBLIVION LOST
Statless RPG Into The Zone



Life behind the couch was hard for GI Joe

STALKER is an action RPG game with a difference: no stats or levels. A character's skill comes from the player and the equipment he purchases, and set in post-disaster Chernobyl.

The game draws from a Russian sci-fi novel called Roadside Picnic, where aliens stop on their way through the cosmic spaceways on Earth and leave junk behind. Stalkers go into the Zone for goodies. The Zone is so dangerous the whole thing is fenced off by the military.

While the UN has robots to inch into the Zone, the life of the Stalker is usually spent crawling forward to try avoid the frequent, killer gravitational anomalies, not to mention army troops and other Stalkers.

The game is non-linear and players will trade what they find, buy new equipment, dodge the official UN teams and keep an eye out for dents in the ground (as they could be the only clue you get of a fatal gravity anomaly or whatever) and try to make a fortune, discover the secret of the Zone and get out alive to tell about it.

The game is being developed by GSC Games World (Cossacks: European War) and is scheduled for late 2003.

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Burwood:: Scorpion Technology Computers
Camberwell:: Webstar Computers
Coburg:: Another World Computer Centre
Donvale:: Computer Age Systems
Hampton:: Australian Quality Computers
Hawthorn:: Krista Computers
Northcote:: Total Theatre & Computer Solution
Maribyrnong:: Digital World
Melbourne:: CTIT Computers
Pakenham:: CW Supplies
Richmond:: Digital Arts Computers
South Melbourne:: Infinity Computer Group
St Kilda:: H-Technology

03-8420-7770
02-6023-1191
03-9509-4632
03-5441-4759
03-9886-1615
03-9888-4288
03-9354-9871
03-9874-3333
03-9521-9200
03-9818-7300
03-9354-1119
03-9318-6022
03-9654-3888
03-5945-2000
03-9429-9677
03-9682-1238
03-9534-3225

Queensland Dealers

Chermside:: Computer Consultancy 07-3359 6777
Southport:: BDC Computers 07-5531 1322
St George:: Cookie Jones Pty Ltd 07-46253474
Wilsonton:: The Electronic's Workshop 07-46331477
Wurtulla:: INCAMS 07-5437 7902
Yeronga:: Celentia 07-3899 6599

AUSTRALIA'S MOST WANTED

The games you want to play now, but still have to wait for

1 C&C Generals

2 Doom 3

3 Tomb Raider

4 Unreal 2

5 Impossible Creatures

6 Deus Ex 2

7 Planetside

8 Lock On

9 Haegemonia

10 Star Trek EF2

Australia's Most Wanted is collated monthly from votes sent to: amw@pcpowerplay.com.au. Be a part of it, send your most wanted games today!

Star Trek Elite Force 2? Are you people INSANE? How do these games get on our coveted Australia's Most Wanted list? Well, the answer is simple, you folks vote them on, and it seems that enough of you are interested enough in ST: Elite Force 2 to get it into the #10 spot, despite the fact that its predecessor was a less than stellar title.

Never mind, further up the list we still have the tasty Haegemonia, the even tastier Lock On, the intriguing Planetside and the dependable Deus Ex 2. Impossible Creatures, the gene-busting RTS from Microsoft and Homeworld-developers Relic, has crept up a few places which is good to see. Look out for next month's exclusive and in-depth review. Unreal 2 for its part has slipped to #4, possibly on the back of the news that the game will in fact NOT contain any multiplayer and be an exclusively singleplayer affair.

A surprise (well not really) new entry is Tomb Raider: Angel of Darkness. This isn't a game we thought PCPP readers would show much interest in, but I guess we've just been proven wrong. And finally, Doom 3 and C&C Generals head up the list. Nothing surprising there, stay tuned for Jere's no-doubt exhaustively detailed Beta report on C&C next month.



ANGEL OF DARKNESS

LIVE FOREVER WITH NOLF2!

It's free games a go-go thanks to the folks at Vivendi who, along with Monolith have given us the sexist game heroine since She of the Two Guns, the Pony Tail and the Tight Green Tank Top. Last month NOLF2 did rather well, scoring a respectable 93% in Derek's review. So this month, we'd like to give a copy each to three lucky (and imaginative) PCPP readers who can answer this sticky question: What would happen if Paul Noone, DVD God and PCPP disc producer, lived forever? What would the world be like in the 52nd and a half century? Would world domination be his? Or what?

Send entries to:
Paul Noone Must Live Forever
PC PowerPlay
78 Renwick St
Redfern NSW 2016



KURT RUSSELL IS IRRELEVANT WINNERS



Kurt's three worst films are of course, Escape from LA, Captain Ron and Overboard (*shudder*). Folks who got it more or less right were Jamie McGraw of North Mackay QLD, Oscar Bem of Warrimoo NSW (Go the mountains boys!) and Yvonne Taylor of Ebor NSW. Enjoy your tasty Icewind Dale 2!

BLACK SKIVVY OVERDRIVE WINNERS!

To win a copy of Kurt Russell's *The Thing*, plus a copy of the new game from Vivendi, also *The Thing*, we asked readers to come up with unlikely survival-horror game concepts. While the quality of entries varied from the mildly amusing to the shockingly blasphemous, 10 entries stood out, and the very best of those was this effort from the deep south of NSW:

Mick Carroll of Albury, NSW presents:

THE VILLAGE PEOPLE in YOU CAN'T STOP THE MUSIC Survival Horror™

Can You Stop the Music™ and save mankind?

Save mankind and change the future of 80s disco by stopping the evil Village People. Maybe even prevent the release of the 'Renaissance' album.

Over 8 different levels all culled from Resident Evil knockoffs have found their way into this game. With level names such as "Crate-a-go-go", "The YMCA", "Grimy-underground-sewer-tunnel", "The Studio" and "The Concert" you're sure to be pleasantly surprised. On completion of the game, extras levels are unlocked, such as the infamous "Do the milkshake" level.

Face enemy bosses such as the GI, The Cowboy, the Indian, the Policeman, The Construction Worker and *gasp* Leatherman.

Mini-games include preventing Steve Guttenberg from becoming a star (and making the Police Academy movies), collecting village people merchandise, facial hair and unlocking other 80s characters hidden in the game. Characters include Jason Voorhees, Freddy Krueger, PeeWee Herman and Snake Pliskin (aka Kurt Russell from *Escape from NY*). Complete the game and the question may be answered - were they really gay?

Can't Stop The Music - Survival Horror™ overpriced and overhyped, coming to all good retailers soon; shortly after available for download everywhere or picked up for \$4.95 at Kmart.



Other fine entries included David Ward of Hamilton QLD's *Jesus Christ Superstar 2: Judgement Day* in which the Lord says "Come with me if you want to live forever". Alex Butterworth-Boord of (indistinguishable) VIC gave us *Bring it On Survival Horror* in which "pompom dancing bimbos" assault the player with "flaming pompom attacks." And Jesse Kupper of Wyrallah NSW touched us deep inside with *Attack of the Brain Sucking Elmos*, in which players are given the opportunity to torch that stupid muppet, and his stupid crayola world. Other winners included Winter Loughheed of Caboolture QLD, Richard Sollorz (or possibly Sollorz) of Narrabri NSW, Alain Smith of Fremantle WA, Jim Nicholls of Rocky River NSW, Carmody Frost of no fixed abode (apparently), and Robert Rowhill of Adelaide, SA. Nice work, y'all!

COMING SOON

JANUARY

2003

1503 AD New World (EA)	20/01/03
Airport Tycoon 2 (TBA)	07/02/03
Battlefield 1942: Southern Front (EA)	14/01/03
C&C Generals (EA)	20/01/03
Freelancer (Microsoft)	22/01/03
Enclave (Vivendi)	29/01/03
Impossible Creatures (Microsoft)	15/01/03
Indian Jones and the Emperor's Tomb (EA)	15/01/03
Monster Jam: Max Destruction (Infogrames)	20/01/03
Operation Steel Tide (Infogrames)	15/01/03
Rise of Nations (Microsoft)	22/01/03
Sim City 4000 (EA)	14/01/03
Vietcong (THQ)	15/01/03

FEBRUARY

2003

Counter Strike: Condition Zero (Vivendi)	01/02/03
IGI 2: Covert Strike (Infogrames)	01/02/03
Imperium Galactica 3 (TBA)	08/02/03
Planetside (Ubi Soft)	14/02/03
Rainbow Six: Raven Shield (Infogrames)	01/02/03
Star Wars Galaxies (Activision)	Late Feb
Ultima Online: Age of Shadows (EA)	15/02/03

MARCH

2003

Championship Manager 4 (tba)	13/03/03
DeltaForce: Black Hawk Down (tba)	27/03/03
CSI: Crime Scene Investigation (Ubi Soft)	13/03/03
Ghost Master (tba)	27/03/03
Lock On (Ubi Soft)	06/03/03
Planetside (Ubi Soft)	13/03/03
Praetorians (Infogrames)	13/03/03
Rayman 3 (Ubi Soft)	03/03/03
XIII (Ubi Soft)	27/03/03
Tron 2.0 (EA)	15/03/03
White Fear (Red Ant)	27/03/03

Aussie Aussie Aussie! (But only silence follows)

Timothy C Best



My very first feature in a games magazine was about Australian games companies. It was a 50-page tour of insanity, taking me from coast to coast looking for what was going down in our sunburnt country, and I still get the sweats whenever I think about it.

A year later I went back and did it all over again. The first time I found 13 companies, the second time there were 39 companies to be found. International games powerhouse, Infogrames, snapped up developers Melbourne House, and EA had just set up a studio down under. Hollywood was starting to look to Australia to make films because of our similar culture, lower production costs and world-class technology. Making games in Australia seemed like a good idea for the same reasons. ACT developer Micro Forte, had even managed to get a tertiary institution up and going for games in the form of the Academy of Interactive Entertainment.

That was all back in 1999. The world was our oyster. We had some 3D mega games on their way. Auran, the makers of Dark Reign, had impressive-looking Harn: Bloodline and a massively multiplayer game on the boil, Micro Forte was working on Big World MMORPG, start-up Evolution had sci-fi Europa in the works and, a little later, Krome Studios formed and had an all-original swinging 60s adventure game, Kat Burglar, on the boards.

No smoke, no fire?

Looking at the websites, Auran has axed the Harn games, and the gala RPG, Excalibur - which will replace them - has only a page promising a new website soon. Meanwhile the Brisbane-based company has been working on its Auran Jet Engine, a collector model train game and some enhancements to pen and paper D&D spin-offs.

Micro Forte has been working on the Big World Engine but hasn't updated its Citizen Zero website in months. Evolution is now touting a Nickelodeon cartoon network game while the Europa site has been dormant for months. Krome has dropped Kat Burglar and put out Ty the Tasmanian Tiger, a kid's platform game which is fairly cool but hardly 60's, sassy, or swinging.

Melbourne House has been working away developing Loony Toon Space Race and Men in Black II on the PS2. The EA studio in Brisbane has been moved offshore.

Finally, Rat Bag - with its world beating Difference Engine - has followed Powerslide with racing game after US-themed racing game and dropped the action title IKON well out of sight.

Has Australia become some form of blue-collar worker for the US game industry? All of which makes me wonder: is Australia destined to do

nothing but develop third-party tools, games based on movies and do more porting than a bellhop? Where are the original titles? Where are the envelopes being pushed?

Round up

Firstly, we have the great efforts of Irrational Australia. Freedom Force broke the superhero curse and Irrational is now pumping up the staff levels for a new project to be announced at next year's E3. Pandemic Australia has just finished the simple but not entirely rubbish Army Men RTS and is now working on Project Z. What's that? I don't know but it sounds impressive and the lead programmer wouldn't give me any hints no matter how much I begged.

SSG, one of Australia's oldest developers, continues to stay independent and develop its own titles for the PC and is currently working on the next in its Warlords series.

Microsoft has just announced a first party developer relationship with Micro Forte, which

Has Australia become the blue collar worker for the US game industry? Where are all the original titles? Where are all the envelopes being pushed?

is fairly big news and MF has confirmed that it's still full steam ahead on its impressive Citizen Zero. Maybe this game will be the genre pushing title that we're looking for - it's a pity it'll now probably be Xbox only.

Auran has put its flashy titles on hold, but its move to an unexploited niche market like Trainz and making it work shows great business sense and the Auran Jet Engine could have a greater effect on Australian development than a next-big-thing title. This complete engine, that Auran itself uses and spent millions to develop, is available for non-commercial uses for a couple of hundred bucks and the first release candidate is free. For a start-up learning the ropes, it could be a godsend.

In the realm of PC development the biggest surprise performer would have to be Blue Tongue. A few years ago Riding Star (a showhorse simulator for, uh, double-x chromosome gamers) was the biggest title under its belt. Then they nabbed the game based on the Starship Troopers movie and now they are developing Jurassic Park: Project Genesis. This theme-park game is looking pretty

sweet, even though it's a movie cash-in game and not an original title. As they say, there are no small parts, only small actors.

Speaking of small parts

Rather than a disaster, we can view the current status quo as many of the big name Aussie developers taking on bread-and-butter jobs that will establish them in the long run. Krome has just finished Ty on Xbox, PS2 and Game Cube and Barbie's Sparkling Ice Show on the PC.

Torus, which brought us Dick Johnson's V8 Challenge, is working on Gameboy Advance titles like Duke Nukem Advance and Doom II (which is meant to rock) as well as Tao Berman Kayaking for the PC. Kayaking might not sound world-shaking but Torus's water modelling has attracted the attention of Microsoft, Nintendo and Activision.

Tantalus (South Park Rally) is porting Melbourne House's Men in Black II to Game Cube, has four Gameboy Advance titles (two license, two original) and an original concept reworking of the old PC game, Treadmarks, for the PS2.

Melbourne House is working on Grand Prix Challenge for Sony's mean machine and Evolution is working the PS2 as well, with a secret title for THQ, and is looking to put on a second team to work on another project, possibly Europa.

Blue collar

At the moment it seems almost a set path that new studios first come out all guns blazing with a cool new idea, get noticed for it and then get recruited to do something else, more of a solid bet, by US publishers.

The only Aussie developers free to try shake the pillars of heaven, besides Pandemic and Irrational with their strong US links, seem to be veterans SSG, Xbox collaborators Micro Forte, Rat Bag (if it chooses to break the Dirt Track cycle) and, to a lesser degree Krome.

This won't always be the case. Although the US is never going to fund original games development here, original games concepts just want to be free. If the big studios can't squirrel away enough to set up original project teams like Evolution plan to do, then developers well-trained making block-buster spin-offs and engine tools will form break-away studios with a dream at their heart. It'll be a dream of a new game unlike anything out there. Soon we shall see games that will hopefully make the US fat cats take out their pens and open their chequebooks like we did with Powerslide, Dark Reign and Way of the Exploding Fist.

And, as a note to the studios I haven't mentioned as being contenders to rock the world, bring it on and prove me wrong - I dare you.

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WHO'S MAKING THE MONEY?

The Guerrilla Gamer



So why do so many people think that the games industry is bigger than the film business? This is a question that has weighed heavily on the Guerrilla's mind as the tragic events involving Winona Ryder's missing price tags have been played out for an eager public. How many times have you heard that "the games industry makes more money than Hollywood?" Games industry people in particular love trotting that one out as it makes them feel like Cecil B. De Mille, but what the hell does it mean?

In Hollywood having lots of money to throw around means huge parties and worldwide events to launch new films. There's the A-list parties with all the hot celebs like Kirsten Dunst and Harrison Ford, the B-list parties with the likes of Kiefer Sutherland and Angelina Jolie and all the other ones that no one admits going to. The games industry also likes to throw a launch party occasionally, however they usually involve a large number of amazingly unattractive people, a few sangas under some glad wrap, some cask wine and, if you're lucky, an exciting speech by Richard Wilkins followed by a few acrobatic tricks from his trained hairpiece. All in all a top night for everyone.

Restaurant chains

All those Hollywood greenbacks eventually filter their way down the various strata of cinema society. In Hollywood actors can afford to start their own restaurant chains like Planet Hollywood, it doesn't mean they will succeed but at least they have the moolah to get things moving. If the games biz has even more money where are all the 'Blizzard LAN cafe' chains? Where are the Planet Romeros? Or the Bruce Shelley Seafood Safaris?

They don't exist because people in the games industry only have a fraction of the profile of the big movie stars, but why? When film distributors promote a new film what do they do? Take the gaming route and place a few ads in a couple of magazines and maybe put one ad on TV? I don't think so. We get inundated in our bus shelters, train stations, on our billboards, posters, chip packets, TV shows, in our cinemas, magazines, in promotional tours by the actors, radio ads, novelty underwear, and fast food children's meals. If you want to know how much money someone has it's often helpful to see how much they spend. How much does the games industry spend promoting its products when compared the film business? Not much, not very much at all.

Celebrities!

Of course creating a high profile isn't done with ads alone, but if there's more money in the games world why aren't we seeing more games

LEONARDO DICAPRIO
THE BEACH



WATERWORLD

Admittedly it's hard to generate interest in people as unattractive as your average game developer, but there are ways around that...

celebrities? Where are the seedy nightclub photos of Peter Molyneux leering down the front of Killcreek's dress? Where are the revelations concerning Roberta Williams' secret love child? What about David Perry's long struggle with malignant halitosis and his subsequent conversion to Scientology? Do we care, and if not why not?

Is it the awards ceremonies, the Oscars, the Emmys and the Grammys? How does the annual Interactive Academy of Arts and Sciences awards night stack up against its film industry rivals in terms of profile and impact? Well, imagine the Oscars were the Pacific Ocean. Next to that the IAAS awards would be a small child urinating off the side of a 12 foot skiff. Admittedly it's hard to generate any public interest in people as unattractive as your average game developer, but there are ways around that.

Front man

The music industry has pre-fab bands a la Bardot, Spice Girls etc. Why not the games industry? Hide the real programmers behind an old shed somewhere and put together a team of hot sexy soap star wannabees, whack on some Atari T-shirts and present them to the world as the developers of whatever, Quake 5.

The ultimate solution to the celebrity problem would be for universities to ban unattractive people from taking computer science courses, and supplement their subsequent lost income by releasing annual nude calendars of the students that make it in. Of course there would be a delayed effect as these people worked their way into the system but surely it would be worth the wait.

Successful excess

Finally there is the excess, the sheer decadence of the film industry. How can the movie business make less money than the game industry when it can do things like replant every tree on an entire island (The Beach with Leo DiCaprio) because the

director didn't like the shade of green on the local plants, caring little for the fact it happened to be in a national park! Or do things like build a 20 million dollar floating set (Waterworld) that sinks when it rains and has to be built again from scratch. The biggest waste scandal to ever rock the games industry was when John Romero spent three years in the hot tub while his cousin Gino made Daikatana, hardly a drop in the ocean really.

We want to hear a story where a game developer actually builds an entire full sized medieval city to use as the basis for a game world, only to have it eaten to pieces by a flock of mad woodpeckers. Now that would be cool.

So then, after a careful and thoroughly scientific study, we may not have shown through careful manipulation of statistics that film makes more money than gaming, but hell, it seems obvious to us that Hollywood certainly SPENDS a lot more money than gaming. And that has to count for something, right?

The Guerrilla Gamer is a veteran games journalist who is rapidly going to seed. Even news of the C&C Generals Beta failed to bring him forth from the sweaty pit of grease that he calls a bedroom at his mum's house. A thousand, thousand hours of EverQuest have left him twisted and bent, which accounts somewhat for his writing style.



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THE CASE FOR THE CASE

Stuart Calvin



If you only ever read the first few lines of this page then do me a favour and make your next purchase a decent PC case. Set your budget around \$250-\$275 (maybe a little more for Lian Li) which will include fans, thumb screws, additional cables and other miscellaneous but necessary widgets - look after one of these babies and you've a friend for life. Your expensive components won't 'die' early, no freezes, no lock-ups, no random reboots, no unfriendly blue screens of death, just fun-loving game mayhem. Now we've got that sorted, let's talk about cases in more detail.

Case design

Saying that someone "should be shot" is lately an unfortunate idiom but it remains fair punishment, if you take my meaning, for the witless fools who design and make the majority of PC cases. That sexy looking box humming under the desk with the Ronald McDonald smile-inspired, neon red plastic moulding on the front is slowly killing your system; as is the heatsink, which may resemble the Eiffel Tower or a 20c piece if you buy on looks rather than efficiency, and if you're not using a thermal interface compound. The grid pattern holes in the case sides, so generously provided by the manufacture, are restricting the airflow over the heat producing components. This is because the airflow through the case will take the path of least resistance, which happens to be out the sides before it has a chance to wash over the graphics adaptor, CPU and disks. And as for many CPU fans, well frankly some of them couldn't even push a plastic boat through the white caps at bath-time.

That \$75 PC case you just bought will probably end up costing as much as a similarly sized, quality case by the time you 'fix' all of the inherent design faults. You can't get a total thermal solution package by using a cheap case yet this is what the majority of people inadvertently accept. To adapt a cheap case into something more efficient means that any pre-drilled case panels must be sealed on the inside with perspex or similar material. A good Sunon

or Enermax intake fan is required at the front and another one at the rear for exhaust (or a blow-hole at the top a-la Lian Li). If there is no fan mount then you'll need to mod the case so it can mount properly and the blue and white Vax brand vacuum cleaner motor filters are perfect as-is for intake fan filters.

So what next?

Next, according to the ATX specs, the power supply should blow air INTO the case, through the power supply towards the motherboard. The idea behind it was that this way, the CPU would be located directly in the airflow and would get along with a passive heatsink. However, as the power supply gets hot, the fan will blow warm air over the CPU, which of course is dumb. Additionally, even with a PSU fan blowing onto them, modern CPUs don't get along with a passive heatsink, they need a fan of their own. So, many case manufacturers are ignoring the ATX specs and are manufacturing their cases with a PSU fan that exhausts, which is the only plus for a cheap case, except of course if the motherboard actually fits. Unless the PSU is an HEC, Enermax, Topower or some other similar quality brand, then you're up for more dollars. Then there's the remaining structure of the case itself - skinned knuckles, alligator wrestling with cable routing, resonance from poor finish and fit, plastic feet that scratch table surfaces, general lack of room for anything more than a CD-ROM and two disks and sub optimal air flow anyway. Can you see why you're better off buying a quality case off the bat?

If you don't have a case fan (or preferably two) then you must install at least one at the bottom front. Most case fans are usually 80 x 80 mm square but other sizes abound. There are also big performance and noise differences with Cubic Feet per Minute ratings ranging from about 25 to 60 CFM. Keep in mind that the higher the CFM, the higher the noise but talk is cheap and so is airflow. Avoid the 0.4 Watt Kung Fu special as they cannot draw through a good filter. However,

after taking my advice feeling shocked by the huge amount of noise after installing your case fans, then this might be improved by putting spacers between the fan and your case. Remember, if the second fan is installed at the opposite side of the case to the PSU fan, then it should blow in the opposite direction of the PSU fan. If the PSU fan sucks air out, the second fan installed in the lower front part of the case should blow in. If both fans are sucking air out, then they would both try to create a vacuum inside the case, and there would be no real airflow.

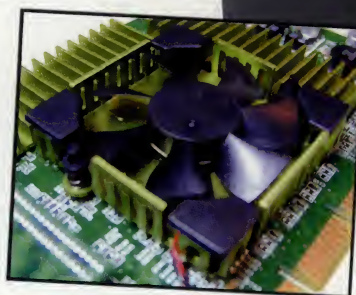
Pasty case

Do you use thermal paste? One of my hardware devotees tells me that when typical CPU and heat sink surfaces are brought together, often less than 10% of the surfaces make physical contact. As much as 90% of the surfaces are separated by a layer of interstitial air. Some heat is conducted through the physical contact points, but much more has to transfer through the air gaps. Since air is a poor conductor of heat, it should be

Can you afford to replace your entire system because your cheap case and cheap fan conspired to destroy your pride and joy?

replaced by a more conductive material to increase the joint conductivity and thus improve heat flow across the thermal interface. So, purchase and use quality thermal interface material like a silver-based compound or at least avoid non-conductive paste. A lot of people tend to overlook this detail when building a system.

Add up the cost of your graphics adaptor, motherboard and CPU. Can you afford to replace any or all of them because your cheap case, cheap heat sink and fan or lack of thermal paste all combined in a hideous conspiracy to destroy your pride and joy? Invest now in a good case and take a look at the range of Macase Champions - they perform well even if you can't beat Ranger on Hurt Me Plenty.

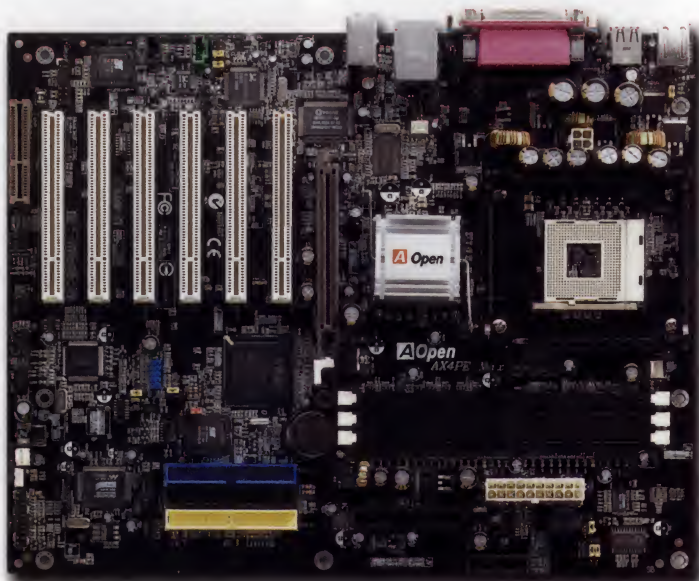




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Peer-to-Peer	No	Yes

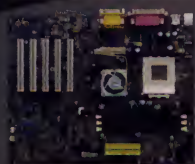


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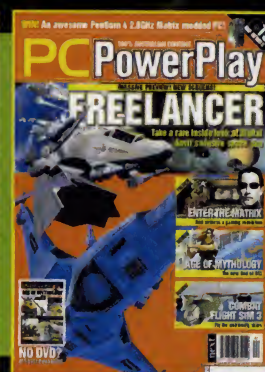
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PCPP #79

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IN PREVIEW

THEY GAVE US THE CODE, WE GIVE YOU THE LOWDOWN

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Enter the Matrix

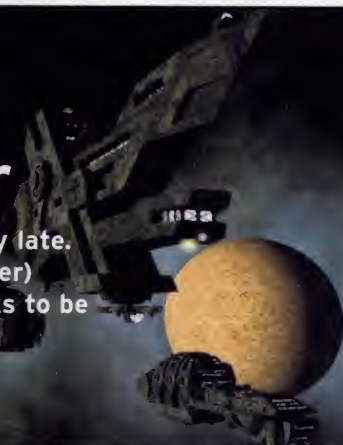
Surprisingly ambitious, definitely exciting, flip the page to learn more!



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Freelancer

It's late. It's very very late. But as our (yet another) preview shows, it looks to be well worth the wait.



So hands up who's surprised that there's going to be a Matrix game? Now hands up who's surprised that it's in fact not going to be a crappy platformer churned out in six weeks by some down-on-their-luck EA subsidiary? The Matrix game, called at this stage Enter the Matrix is actually being handled by Shiny Entertainment, creators of such critically (if not popularly) acclaimed titles as MDK and Messiah. Say what you will about those games, they certainly sit well with the 'greasy sci-fi' mode of the Matrix.

In fact, when we heard Shiny was handling the Matrix, we forced Steve Polak to take yet another trip to Canada to talk to them, even though he'd just been there on an Unreal 2 junket. Now word has it Steve can't even get to sleep unless someone pipes the sound of Rolls Royce RB211-524H jet engines into his room. But we hope his in-depth preview on the very next page makes up for any long-term psychological damage.

And speaking of in-depth, Jere formed part of the current Sims Online Beta, and while we expected him to go in with lip curled and caustic remarks at the ready, we were surprised when nobody heard from him for five days and then he emerged with a big grin on his face. The Sims Online is apparently and incredibly entertaining, rewarding experience, even in its unfinished state. Jere's hugely detailed six-page preview starts on page 48, and it just gets crazier from there.

Along with the announcement of a detailed expansion pack for IL2 (30 new flyable planes! It's insane!) we've also managed to snare some new information on Freelancer. This is one game that has been a long, long time coming and it's great that we've finally managed to squeeze some extra information out of Digital Anvil in between them changing Project Managers for the nine hundredth time. The more we see of Freelancer though, the more confidence we have that this tasty space sim could indeed fill the hole left so many years ago by the dear departed Elite.

The bottom line this month? Why, come on in, the gaming's fine!

Justin Hoffman
letters@pcpowerplay.com.au

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Sims Online

Jere says it could be the most entertaining MMORPG yet. Has he gone sim-mad?



54

IL2 Addon

Head back into Russia for more tank-busting action







HAS THERE BEEN ANOTHER FILM THAT MORE ACCURATELY PORTRAYS A GAMER'S ULTIMATE FANTASY? IMAGINE, YOU WAKE UP AS THE ONE, ABLE TO MANIPULATE AN ARTIFICIAL WORLD TO YOUR EVERY WHIM. PLUS YOU GET COOL GLASSES. THE NEXT FILM SHOULD BE WITH US IN A MATTER OF MONTHS, AND NOW AT LAST THERE IS A GAME IN DEVELOPMENT. **STEVE POLAK** SCALES THE CANADIAN ROCKIES IN ORDER TO BRING YOU THIS FIRST DETAILED LOOK.

LOADING...

ENTER THE

MATRIX



More than any other film in the 90s The Matrix represented the cutting edge of science fiction and new cinematographic techniques. The film, having been inspired by some cool digital tricks in other movies like Blade, blew us away with the 360 degree panning brilliance of what has now come to be known as 'Bullet Time', as well as a host of other tricks all bound up by a script which was a real head trip.

With such success at the Box Office it was a surprise that there was no game. The Matrix devotees waited and waited, but Trinity, Neo and their pals were not on the other end of the line, that is until now.

Firstly some revelations. The game, called Enter The Matrix, won't be based on the first movie. It will not even mimic the second movie, but will instead augment what happens in the film. But relax: the game won't be an unrelated rip-off of the basic film ideas which then goes off in a direction unrelated to the movie either.

IN THE GAME YOU WILL NOT JUST BE ABLE TO BEND THE RULES OF PHYSICS, BUT OFTEN BREAK THEM...

SO WHAT THEN?

Instead both the game and film will be intricately interwoven, existing in parallel times. Events which happen in one timeline will be felt in the other. Dave Perry, the man from Shiny Entertainment responsible for the game, had a lot to say when we met him recently. He insisted, "We won't be doing a shallow version of the same ideas in the film, but will instead deliver new ideas and developments which

happen at the same time as the characters and events are doing different things in the film, and these will all be linked."

Dave added, "The Wachowski brothers, the masterminds behind the film, have been directly involved in the creation of the four hundred page script for the game and there will be a lot of stuff in it which will catch people off guard. You will be surprised just how deep the rabbit hole goes and where it will take you."

AND JUST WHO THE HELL IS ALICE?

This last comment is an allusion to the Alice in Wonderland references which were made in the first film and certainly if you enjoyed that then you will find Enter The Matrix will still let you catch up with many of your favourite characters from the film to see how they are faring as they battle The Matrix.

You will from time to time come across Neo and Trinity as well as the enigmatic Morpheus, but

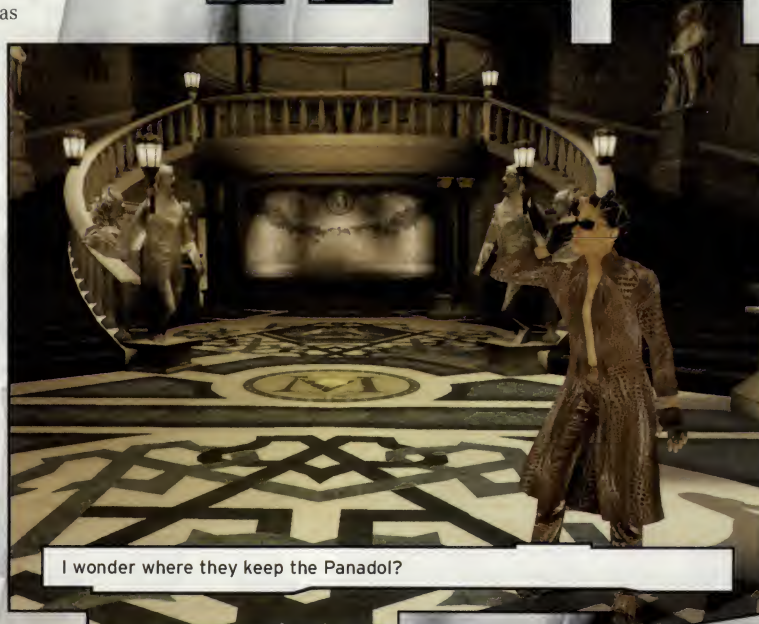
the game will also introduce several key characters, three of whom will be central to the gameplay. These are Ghost, Niobe and Sparks.

Niobe and Ghost will be playable characters and Sparks will be your operator, monitoring your insertion into The Matrix and providing you with mission information and backup.

We got to see Niobe in action and she is a powerful



You CANNOT stop the music!



THERE IS MUCH USE OF 360° SLOW MOTION PANNING AND OTHER CINEMATIC SPECIAL EFFECTS...

martial artist. Ghost will be more of a special weapons character. At the start of the game you will choose one of these characters and this will determine very much where the game will take you. You won't be able to change characters mid game, but the differences between Niobe and Ghost are such that playing each in turn will give you separate game experiences.

Enter The Matrix will be released in May 2003, at the same time as the film, with the plan being that Shiny will be able to reach Beta status in mid February. At the time of writing they have 545 bugs to attend to and 266 days to finish the game (How very Starblazers of them - Ed).

THE QUESTION THAT DRIVES US ALL

Originally Dave Perry wanted the player to control Neo in the game, but as he found out Neo isn't the right choice for a playable character as some nasty stuff happens to him in the next movie, stuff which Dave couldn't tell us in detail, but which renders him not so useful as a playable character in the game.

Indeed Dave has a lot of details about the film and this is causing him a few sleepless nights at the moment. As he says, "I am very afraid of leaks. I have a safe which is bolted to the floor at the office which has all of the documents that spell out the plot for the game and the film. The documents have an incredible amount of detail in them and would potentially spoil the movie if they got out so I am very afraid."

The scripting for this game is apparently a leviathan-sized document. Along with the cast from

the film being involved in hours of dialogue, there are two hours of cinematics. The narrative also ties directly in with the movie as well as even setting some elements up for the sequel. The lads from Shiny have even been in Australia this year grabbing footage from the movie sets, preparing the game right under our very noses.

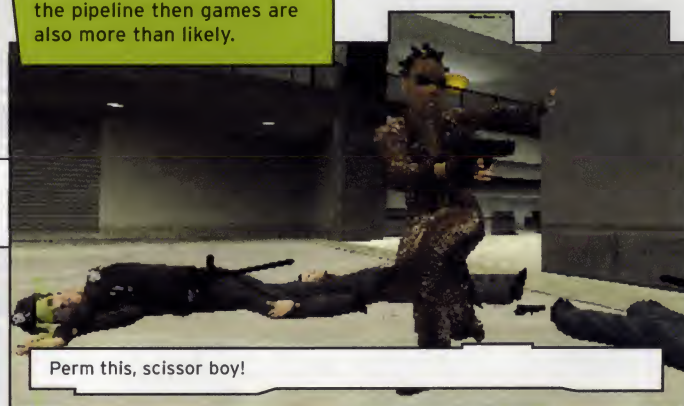
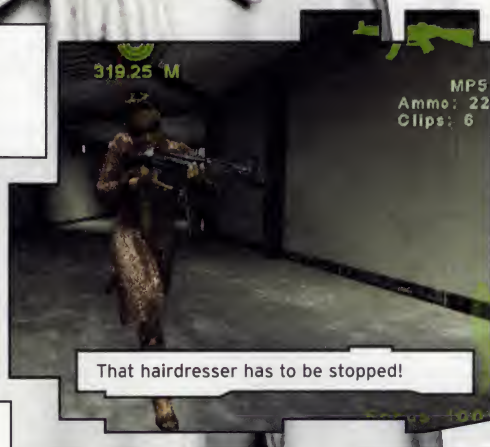
Dave Perry is very happy with the level of collaboration between the two production crews. As he says, "I was only keen to do this game if we had the rights to absolutely everything, and this is what the Wachowski brothers gave us. In fact we even created rooms using 3D art which the guys then used as the inspiration for some of their sets so it has been a very closely collaborative effort".

MORE MATRIX?

This may not be the only Matrix game in the works. Dave Perry certainly couldn't confirm anything and neither could Infogrames. However there has been some talk about a firstperson shooting game which sees you visiting the vast fields where humanity is harvested to be used as batteries by the Als and shooting a variety of robotic watchdogs who oversee the central CPU controlling the Matrix. Certainly the current Matrix movie is not to be the last in the line. As long as successful films are also in the pipeline then games are also more than likely.

WHERE TO FROM HERE?

So what is the game about? Well The Matrix hasn't been smashed by Neo as the ending of the original film led us to believe. Agent Smith and his digital buddies are still roaming the virtual realm and kicking just about anyone's posterior without much of a prospect of defeat and mankind is still predominantly enslaved, hooked into the grid as mindless living copper top batteries.



You can control either Ghost or Niobe and you will spend the bulk of your time in the Matrix, although there will also be some gameplay in the real world where you will have to try to avoid or fight the robotic hunters, the 'Squidy' Sentinel androids which try to hunt down your base ship. There will also be smaller faster hovercraft that you will use to venture further into the tunnels which crisscross Earth, looking for the CPU which powers the Matrix - or some other weak point.

However the bulk of the gameplay will be in the virtual realm with you not being bound by the conventions of a particular genre. There will be 3D shooter elements, text puzzles which see you hacking the Matrix from within the program, lots of in-your-



The beat is gonna getcha!

WE HAVE AN INTELLIGENT TEXT ADVENTURE IN THE GAME. YOU USE REAL WORLD HACKING TECHNIQUES TO GET INTO THE MATRIX...

face martial arts and an increased emphasis on driving. As Dave said, "With the hacking we have a complete fully embedded intelligent text adventure in the game. You use real world hacking techniques - we get you hacking the Matrix BIOS, and changing things by yourself."

FOOT TO DA FLOOR

The vehicle driving element of the game, and the new movie for that matter, has been given a lot of significance when compared to the original film. Exciting stuff.

"We didn't want to do a typical driving game because this game doesn't see you living in a normal world. When you are in The Matrix and have to get out using a hardline you are often being chased. Now in this situation you have to drive like a maniac. This is not a race but a desperate crashing smashing sprint to the hardline where you will be able to exit The Matrix and get back to your ship and so you will drive over and often through obstacles and we'll be giving the game that sort of manic feel which is at the moment looking like being a lot of fun for the gamers."

FOCUS YOUR MIND

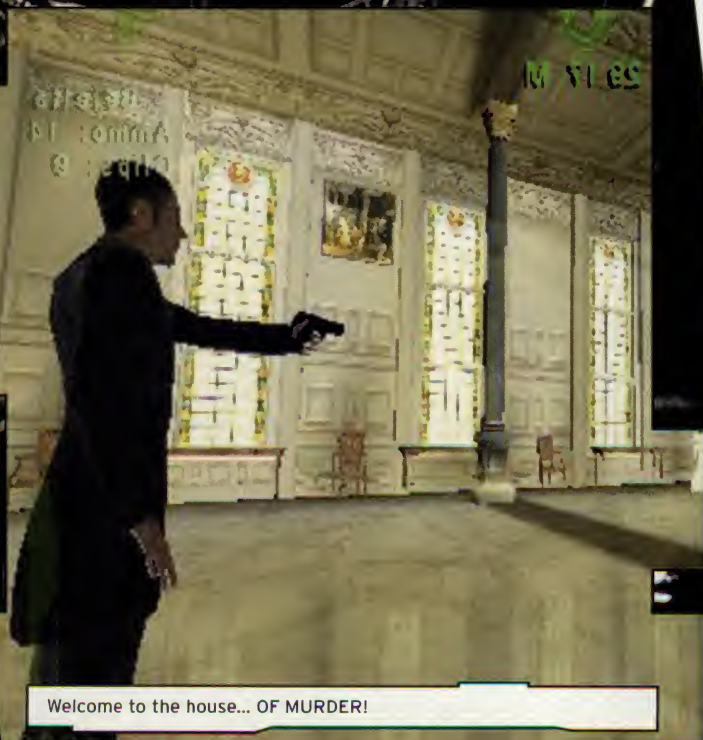
We didn't get to play or see the driving elements in the game, but we were blown away by the martial arts combat stuff. As you'd expect

TESSELLATION TIME

Enter The Matrix will work on an epic scale and at the moment Dave reckons the game fits onto 13 CDs, so there is a lot of compression work to be done. The size of the thing is in part due to the huge scripts, masses of motion capture data and huge environments. The fluid movement of the characters makes it all worthwhile though, as the motion capture is the most intensive to date in a game. The team used 32 motion capture cameras and Dave Parry is adamant that the visuals will be bleeding edge, but also scalable depending on your PC's power.

As he says, "If you have a 3GHz PC with a GeForce 5 this game is going to look amazing, but more importantly we have a level of detail system which will be scalable so the game won't look awful on lesser machines, there will just be less detail in areas which aren't as important as the game tailors what it is doing to the power of your machine. You may have seen an earlier version of this tessellation technology in our previous games like Messiah, but the code for the scaling is completely new and is something which I think will turn a few heads when it is finished."

there is much use of 360 degree slow motion panning and other cinematic special effects. Indeed Shiny have come up with a system which players will employ to control their 'bullet time' styled abilities. The system is called 'focus' and you



Welcome to the house... OF MURDER!



Lurking monoliths of sheer tin

COMBAT IS ALL ABOUT BEING RIDICULOUSLY POWERFUL - JUST THINK "THE LOBBY SCENE" OF THE FIRST MOVIE

will use up your focus power whenever you want to use your special abilities to outwit enemies.

Max Payne fans should start salivating here, as the focus system is very much like bullet time, except that there is a lot more you can do and you can even use your focus skills to help you rush up to opponents in the game and disarm them with a vicious slap and smackdown move which looks brilliant. Focus will also be useful in that you will be able to do long distance jumps, somersaults and wall bounce moves.

All of these moves are possible while firing, throwing a grenade or in combination with melee attacks and it is the clever use of focus and brilliant looking slow motion moves which makes this game instantly recognisable as a winner in the making.

Melee combat is all about being ridiculously powerful, and putting enemies down quickly and with the sort of flair which blew many away when watching the 'lobby scene' in the movie when Trinity and Neo take on a legion of guards as they bust into a high security building inside the Matrix in a bid to rescue Morpheus. Dave is the first to admit that this scene is a big inspiration for him and drives his team to create a similar feel in the game.

"The combat in that one scene is more influential for me in the development of the game than

anything else you will see in the first movie. When you saw that scene like me you were probably just sitting there wide eyed and blown away and this is what we are going to deliver with the combat in the game. This is a tough goal, but already we have some of the coolest combat action I have ever seen in a game, and there is much more to do. You are hard as nails, if there are ten people to fight then you put em all down quickly and get out of there."

In the game you will not just be able to bend the rules of physics, but often break them. Using focus when playing we made Niobe run along the wall while shooting then do a somersault dive and rolling to the ground. She then popped off a shot, before landing next to a hostile soldier and grabbing him and snapping his neck. Nuff said!

A LOT TO LEARN

Sounds like fun, but the game will be no cakewalk. For a start you won't have Neo's highly developed focus skills and won't be able to simply see through agents like Neo does in at the end of the first movie. Instead you will have certain focus skills which you will develop, by using focus moves more regularly during the game. The idea is that you will become better at 'freeing your mind', seeing The Matrix for what is it and taking developmental paths which see you developing skills suited to how you choose to play the game.

This way you will learn new skills and get better at using those you already have, but beating an Agent will always be something which represents the zenith of your skills so don't expect it to happen



very early in the game. Indeed Agents will be your greatest challenge and taking one on is a major decision as they can pretty much whip you at will.

You will have to watch out for them too as they will be able to see through the eyes of the many normal inhabitants of The Matrix and will show up to take you on if you arouse too much suspicion. This should lead to some interesting stealth-oriented challenges as you will need to avoid detection on some missions.

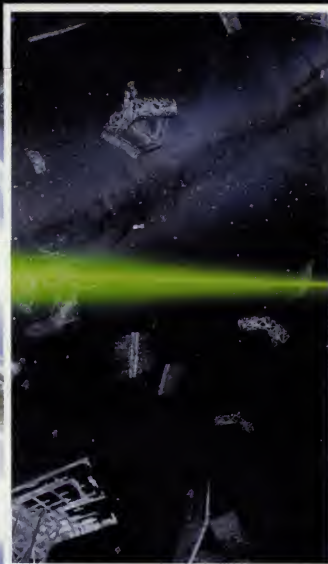
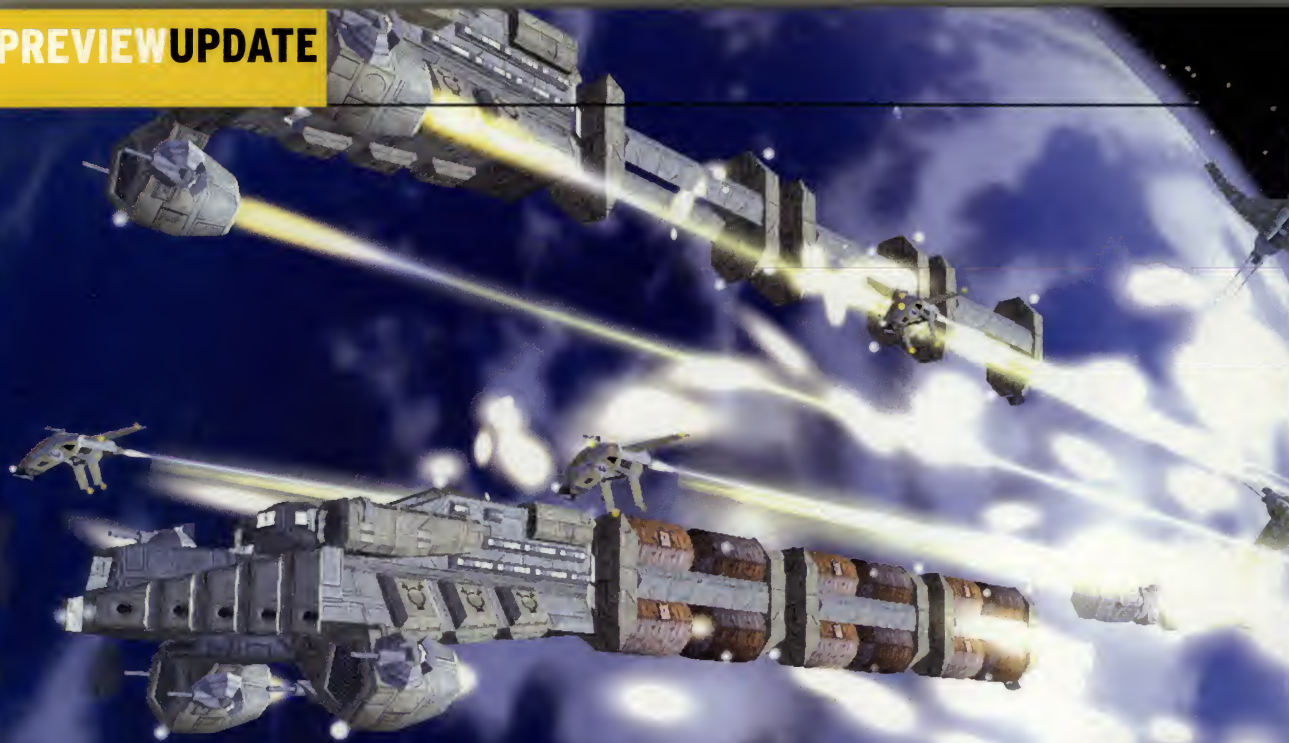
Even though much is still shrouded in mystery, Enter The Matrix is looking like being a killer app. We'll take a closer look at the game in the coming months, but for the moment you will have to stay near your hardline until you get the call. And remember, ultimately, you need to see it for yourself.

COMBO COMBAT

The control system is something Dave Perry is very proud of. He has been keen to ensure that combat is as spontaneous and as full of improvisation as possible. To this end he has been asking his programmers to come up with a new death, hold or attack move at least once a week. Certainly even at this stage it is impressive to see Niobe running up to opponents, kicking the weapon out of their hands, spinning around and using it against them. Dave also showed us an arm-breaking attack which was swift, vicious and quite funny even though it was very brutal. Using combinations of attack buttons in different situations will be the key to unlocking the variety of attacks the game has to offer, with the PC version of the game being just as flexible and full of varied moves as the console versions. Although Dave does admit the PC interface will present unique challenges.

"The combo system we have planned will be very hard to implement, and I am looking for one guy to handle the programming of this now. It is that hard and that important on the PC. We have looked to make the special moves context-sensitive though, so that the controls anticipate the sorts of moves you make, and this should help a little. It is sort of like traction control, but for gamers."





Freelancer

We take a fresh look at this long-overdue space sim

Developer: Digital Anvil ■ Publisher: Microsoft ■ Distributor: Microsoft ■ Available: Early 2003



Freelancer was first announced back in 1999 by Chris Roberts, one of the 'behemoths' of early PC gaming, one of the founders of Origin and creator of the Wing Commander series. The game was to be a return to the core of space exploration and trading - a totally free, open-ended universe. David Braben's Elite had originally done this way back in 1987 with nothing but a bunch of white lines and a few bleeps from the PC speaker, and now Chris Roberts was attempting it with everything modern 3D accelerators had to offer. Except, when

development on Freelancer began, the modern 3D accelerator was a Voodoo2.

Naturally, since then much has changed. We last saw Freelancer in action at Microsoft's 'international' gaming festival in Vegas in March, now minus Chris Roberts and plus a whole lot of graphical effects that would leave a Voodoo2 gasping for breath.

Why the delay?

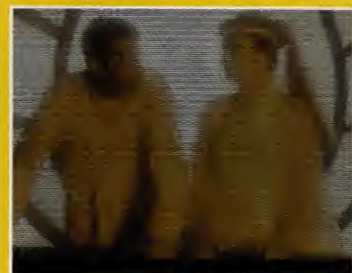
Freelancer, it would appear, has been one of those projects where the team leaders of the day always wanted to put one more thing into it. As a result, the playtesting (which can only be done once the game is 'feature locked') was delayed again and again and every time the team was approaching an alpha stage, graphical technology had leapt ahead another generation and the game was already looking slightly old. Remember, that in the time we've been waiting for Freelancer, we've had the likes of Freespace 2, I-War and I-War 2 which respectively redefined graphical standards, simulation standards, and both at once, in the highly specific genre of 3D space sim.

While Microsoft, the current (and hopefully final) publishers of Freelancer have remained circumspect about what's

PRIVATEER 2



This ambitious and very different space sim was released in 1996 and immediately set itself apart from the mob with a very unusual design philosophy. Earth was not in the picture and the various bases and planets the player landed on all had very... imaginative docking screens. The game also attracted some real B-list talent, including respected British actors John Hurt, Clive Owen and Brian Blessed (the guy with the beard in the first series of Blackadder) and well-known American Christopher Walken (last seen dancing in a Fatboy Slim film clip). The acting was top notch, the FMV was nicely shot, the environments and ship models were pretty and unique and the gameplay... was actually kind of crap. Let's hope Freelancer learns from the mistakes made by Privateer 2, and comes up looking as good, but playing a hell of a lot better.

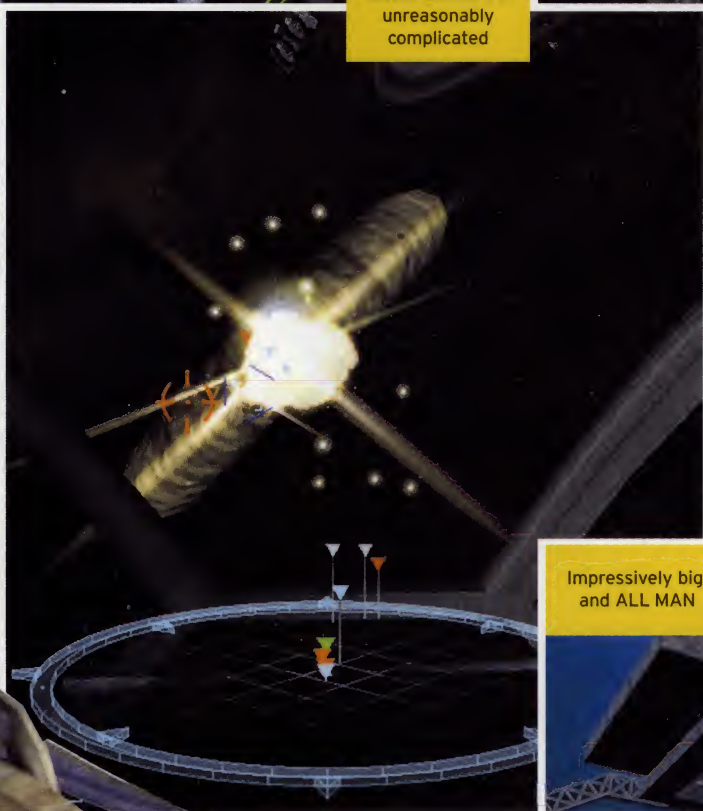


In the time we've been waiting for Freelancer we've had the likes of Freespace 2, I-War and I-War 2, which redefined graphical and simulation standards

Freelancer has graphics that take advantage of everything a modern 3D-accelerator has to offer. But when development started a modern 3D accelerator was a Voodoo 2



It's not a space battle unless it's unreasonably complicated



Impressively big, and ALL MAN



been going on in the team, we can nevertheless tell there's been a lot of hirings and firings and comings and goings until it seems the entire pool of talent on the title has been flushed out and refilled with folks whose minds are rather more on the job at hand: producing a space trading and combat game like no other.

Exact details still sketchy

Since Vegas, we've learnt a little bit more about the Freelancer universe. Like I-War there will be two kinds of faster-than-light travel: the classic hyperspace portal that jumps a ship to a completely different system (with associated load times) and a slower insystem transit lane network, like I-War's LDS. The transit lanes are defined by gates, and

it's actually possible to watch traffic travelling between these gates and, you guessed it, ambush ships at their most vulnerable.

Freelancer is very much about choice. There will be four main character 'types' - trader, pirate, bounty hunter and police escort and the player will be able to choose which type they wish to pursue in a very dynamic way.

THE DYNASTY

To link Freelancer to the Wing Commander universe is slightly specious, since the creator of Wing Commander, Chris Roberts, has long since departed the Freelancer development team and is now pursuing projects unknown. However, it should be recognised that Freelancer was at least born of this great stable and so, for nostalgia purposes only, here they are again. Let your memories free!

WING COMMANDER

1990, Origin

Our first ever encounter with the Kilrathi, ten years into a protracted war for the Vega sector. Featured revolutionary sprite-based '3D' graphics and a branching mission structure, where success or failure in a particular mission would affect even the in game cutscenes - would the scientists in the outpost be slaughtered by Kilrathi marines, or would they win the day? Two expansion packs were released, Secret Ops 1 and Secret Ops 2: Crusade, telling the story of a Kilrathi secret weapon and a quest to save a new sentient species, the Firekkans.



WING COMMANDER 2

1991, Origin

With the hero of Wing Commander disgraced after the destruction of the carrier TCS Tiger's Claw, the player finds themselves accidentally stationed on the TCS Concordia with many of the original cast returning in new, three-quarter profile enhanced form. A much more ambitious game than WC1, the branching missions occasionally contradicted each other, and dead wingmates would often come back to life to perform important plot events. Followed up with two Special Operations packs in which everyone accused everyone else of being a traitor to the Confederation.



WING COMMANDER ACADEMY

1993, Origin

Half-arsed version of WC in which the entire game was like the simulator found in the corner of the Tiger's Claw bar in WC1. No story, but it was possible to construct fairly complex missions using the game interface or fly against 'the Gauntlet'. Included all the ships from WC2 plus a few extras.



WING COMMANDER ARMADA

1993, Origin

Ambitious but flawed attempt to make a strategy version of WC. Player could take the side of the Confederation or the Kilrathi and attempt to gain control of a sector of space. Was the first WC to use vector graphics, but still VGA so it looked kind of nasty.



WING COMMANDER PRIVATEER

1993, Origin

Definitely a worthy classic but often overlooked. Further enhanced the WC sprite-based engine with a veritable universe of ships. Player had complete freedom and numerous upgrade modules. Kilrathi raiders would shout in frustration "Fight back, there is no honour in slaughter!" The main story had the dashing scarred hero searching for a mysterious weapon called the 'Steltek gun'. A subsequent expansion pack, Righteous Fire (best title ever?) had the gun stolen in the first ten minutes of play. As good as Elite? No. Better than Elite Frontier? Definitely.



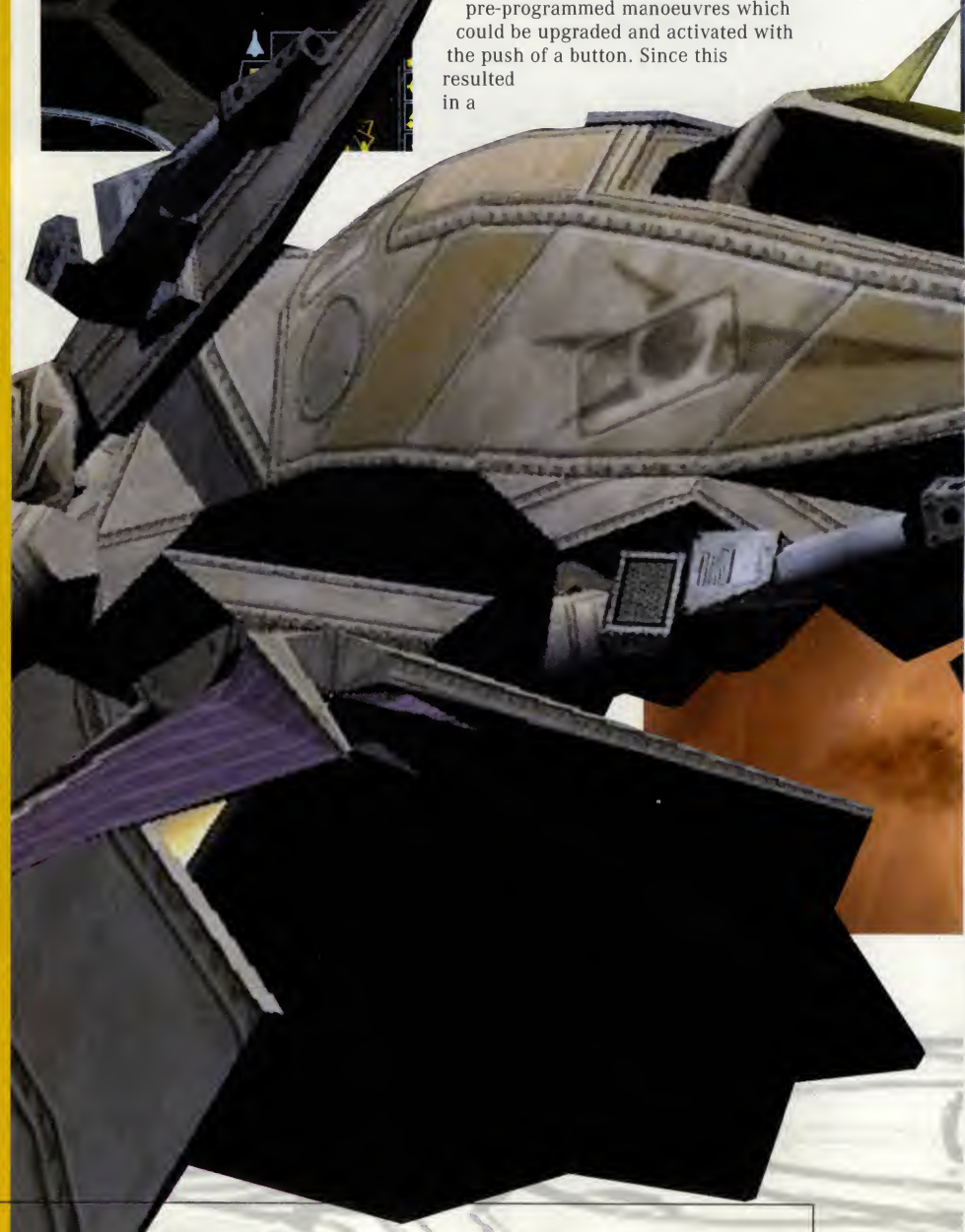
The new cockpit - more teal than ever before



While there will be heavily scripted story-specific missions, the random missions will be carefully constructed so it's possible for the player, on exiting hyperspace to assist a beleaguered police cruiser, to say stuff it I'm going to help the pirates blow this damn thing up. What's more, choices like this will have very complex consequences, and allow the players access to whole new sections of the game. The pirates, for instance, have an alternative hyperspace transit system that evades most police patrols.

Control methodology

Digital Anvil have since the outset tried to steer away from the joystick/keyboard method of controlling a futuristic space fighter. Initially the interface offered pre-programmed manoeuvres which could be upgraded and activated with the push of a button. Since this resulted in a



highly automated and not very interactive combat experience, a lot of this was stripped out, the default camera switched to thirdperson, and the whole battle system given a real kick in the pants. Now battles are far more immediate and intense, hopefully able to eclipse even the Freespace 2 nebula combat experience. Intriguingly though, Digital Anvil has reiterated their decision to not support



Rocks rock, that's all there is to it



One of the more advanced fighters on offer



Open the pod bay door HAL...

THE DYNASTY (cont)



STRIKE COMMANDER

1993, Origin

Not part of the Wing Commander universe but actually set in the near future after the collapse of the West. Player was part of a mercenary air force flying F16 Falcons in a series of rather soap-opera like missions. Had gouraud-shaded graphics and polygonal terrain. Also had a Tactical Operations expansion pack that saw nuclear cruise missiles launched on Ireland.



WING COMMANDER 3

1990, Origin

Enter Mark Hamill. The most expensive computer game ever made at the time, ringing up at \$3million, employed hours of FMV, hours of Mark Hamill, hours of giant cat puppets and hours of the guy who played Biff in Back to the Future. Gameplay was the same as always, but used a 3D engine and had some of the best-looking ship models of the day. Bonus: featured the talents of Ginger Lynn Allen, a leading porn starlet, in the role of ship's mechanic. And you could snog her. Or at least Mark Hamill could. Also offered the unusual experience of copying the last mission directly from the climax of Star Wars right down to having the SAME ACTOR in the cockpit.



WING COMMANDER 4

1995, Origin

Even more expensive than WC3 with even more Mark Hamill and Biff from Back to the Future action, plus Malcolm McDowell (Clockwork Orange) and the black guy from that film with Sandra Bullock in it, WC4 went the whole hog with full sets, a moving camera and elaborate costumery. Unfortunately it was absolute rubbish, because with the Kiltrathi homeworld blown up at the end of WC3 by Luke Skywalker... sorry, Christopher Blair, the only enemies were slightly mutated humans.



WING COMMANDER PROPHECY

1997, Origin

Briefly, fans' hearts leapt as a whole new cast of characters and a whole new alien race were introduced to the WC world, but then they sank again as Mark Hamill appeared five minutes into the introductory FMV. Best engine yet featuring the full set of DirectX bells and whistles, but the bug-like aliens were less than inspiring and the new lead was a whiny Dawson's Creek type. The core definitive WC experience had died half way through WC3. Tried to resurrect itself with Secret Operations released for free over the Net, but this did little to freshen the diluted blood of a once-proud dynasty.





I-WAR & I-WAR 2

Released in 1997, I-War was one of the first space sims to come right out and call itself that: a simulator. It told the story of a world at war with the Indies, renegade colonists who had a funky habit of spraying their stolen spacecraft with saucy graffiti, such as "To the Navy: Catch me if you can!" The game distinguished itself by using a very different starship model to that seen in the likes of Wing Commander and Freespace. Rather than using a one-man fighter, I-War allows players to take command of the 300 metre Dreadnought-class Corvette (I know I know, confusing), complete with a full compliment of bridge crew and several hundred men below decks manning the sci-fi equivalent of the boilers. The ships had definite weight and mass and would take some considerable time to stop. In combat, tactical thinking was king, as the shields only covered the top and bottom of the ship, with the front, sides and back exposed to fire. So it was necessary to execute groovy but difficult flips, spins and rolls in order to make the most of combat. Many players gave up after the third impossibly difficult mission, but those who persisted were rewarded with a surprisingly detailed gameworld, funky new weapons, and some of the coolest aliens ever seen in gaming.



Freelancer aims to make generic space a thing of the past, with each of its sectors having a specific backdrop which you can orientate yourself by.

joystick control in the game - all control will be handled by the mouse and the WSAD-key combination. So it will in fact be possible to fly your ship backwards, firing at approaching opponents. Tasty!

Speaking of firing, this is handled with the right mouse button. There are also controls to quickly switch between the full six banks of main weapons or select other combinations. The cursor moves freely around the HUD allowing you to activate controls, but holding down the left mouse button turns the cursor into a heading indicator, steering your ship toward its position on the screen. This can also be toggled with the space bar.

The ubiquitous scanners, mainstay of any space sim, allow the player to select friends, enemies, loot or all three, and a helpful tractor beam mounted as standard allows you to pick up useful

bits and pieces out of the wreckage of your foes.

Your place in space

The then project manager of Freelancer when we spoke to him in Vegas also made comment of how the vast majority of space-sims treat space as a great bit empty black cube (or sphere) with stars painted on the inside. Space, in other words, wasn't really a place. I-War tried to break this mould by allowing players to cruise about the familiar Solar System, but the backdrop was still stars, stars, stars with the occasional planet thrown in.

Freelancer aims to make generic space a thing of the past. Each gameworld sector in Freelancer has a particular backdrop, be it an exploded sun, an asteroid belt or a distant minefield, and the position and orientation of this backdrop will change depending on the player's position within the game sector. So depending on your position relative to dust clouds in the asteroid belt, an experienced player will be able to determine his location without even looking at his map. And that's what makes the world of Freelancer a real world indeed. It will also be possible to point your ship and actually fly to the object shown on the backdrop - however, be prepared for a considerable wait while doing so, these sectors are big, and you'll run into inevitable opposition on the way. Not to mention pirates.

Landscape

The environments of Freelancer are also surprisingly varied for a space-sim. It's not all eternal blackness and nebula effects out there, you know. The asteroid fields, for a start, are a far cry from the days of Wing Commander. In fact, travelling through the rocks is more

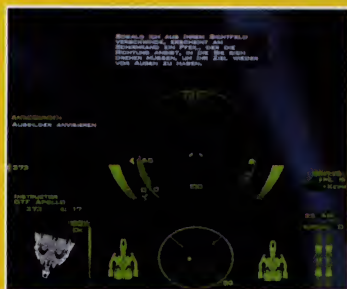


Mysterious glowing objects and cityscapes



FREESPACE & FREESPACE 2

For those who hated all things Star Wars, these were the definitive space combat sims of the late 20th Century. Originally based very loosely on the Descent series (remember THAT one folks?) the games featured massive capital ships, massed battles, and the coolest volumetric nebula effects of the day. In Freespace 2 particularly, battles against Shivan forces inside the nebula were claustrophobic and tense, with ships appearing all too suddenly out of the murk, and sensors only intermittently reliable. And the capital ships, always just out of view, would stab blindly with their big hull-mounted lasers and missile batteries, hoping a stray shot would clean up an unwary target. And those ships were big. How big? Taking five minutes to fly alongside big, that's how big.



While there will be heavily scripted story-specific missions, the random missions will provide many choices that will have complex consequences

reminiscent of the key scene in the Empire Strikes Back, with gigantic irregularly-shaped monoliths smashing into each other, some rocks as small as pebbles, others big enough to hide entire bases, which of course they do. We also saw the creepy and atmospheric ice fields, where titanic shards of frozen material spin and tumble, forming deadly hazards for prey and hunter alike. The environments of Freelancer are part of what will instantly set this game apart from what has come before it, and we can't wait to get down and get amongst them.

So what's the story?

Freelancer's background ties it in to an earlier (and not particularly successful) Digital Anvil game called Starlancer. In Starlancer, a near-future society saw a renewed Cold War between the Russian-led Coalition and the US-centric Alliance fought among the moons of the outer Solar System. As the Russians gain the upper hand, the desperate Alliance builds and launches five colony ships to escape the war-torn Earth and its local neighbourhood.

Eight hundred years later, and four colonies have flourished. Bretonia, Liberty, Kusari and Rhineland have each established unique societies among the new worlds of a different galactic quadrant. The fifth ship is missing, and the mystery surrounding it forms part of the plot of Freelancer.

The player enters this world footloose and fancy free, with nothing but a fat wad of cash and the desire to get into space. Like other games of its ilk, there will be plentiful job boards, seedy bars and other sources of employment.

There are different factions in Freelancer, representing the four Houses as well as other groups such as pirates. An RPG-like favour stat tracks the player's standing with each of the factions, and certain missions and locations become extremely difficult or impossible to reach if your standing with a particular faction is too low. Fortunately, it's possible to bribe your way back in to favour, ensuring that in the future, more than ever, cash is king.

Commodity exchange is colour coded so shrewd merchants can instantly see which deals are worth pursuing, and random missions are given a difficulty rating out of 25, and their availability is dependant upon how much cash and influence the player has amassed. Too little cash, too little experience and the computer will simply reject your request to be assigned the mission.

Multiples of goodness

Multiplayer has most definitely not been neglected. Digital Anvil plans to include a system whereby players can create Persistent Servers - it's not like a MMORPG exactly, but it does allow for a far more in-depth multiplayer experience than your average Q3A map cycle. While the server is up, the world will continue to run, NPC traffic will continue to go about its business, battles will continue to be fought, and missions will continue to be generated, some based on the events in the battles. It's similar to the dynamic campaign seen in many

modern flight sims, but far more accessible. There will be a full slew of co-operative options, and the persistent servers will allow for



STARLANCER

Freelancer, as mentioned in the text, is related (sketchily) to the world of Starlancer, Digital Anvil's last foray into the world of the space sim. This game was overseen by Chris Roberts' brother Erin, he of Privateer 2 fame. It told the story of a futuristic cold war, with Russia and a loose group of allies taking it to the West and beating the US-led Alliance back to beyond the orbit of Neptune. Then, just like that arcade classic Gyrus, it was a no holds barred firefight for the Homeworld, and no fur hat wearing space jockey was going to get in their way! Sadly though, actual gameplay was generic as toothpaste, the graphics were lacklustre, and the game slumped sullenly into the bargain bins of iniquity. Perhaps they'll include the full version free with Freelancer? Then again, who cares?



up to 16 players - more than enough for a Corellian Death Flotilla.

When O Lord?

Freelancer is still an imminent release, currently in closed beta but due to hit shelves early next year, although back in PCPP#73 we were expecting it now. Producer Phil Wattenberger (a different guy to the guy we spoke to in Vegas) insists that the game is nearly done. Here's hoping the team doesn't catch sight of nVidia's NV30 demonstration videos and decide to put off the whole thing until the NEXT graphical revolution, and let's also hope id software don't crush Digital Anvil's hopes with the new Doom 3 engine. Let's just hope we can finally sink our teeth into a new and tasty version of Elite as soon as possible. It's been too long between Wing Commanders. And I for one am not going back to Prophecy.

Anthony Fordham





The Sims Online

They're everywhere I tell you, EVERYWHERE!!

Developer: Maxis ■ Publisher: Electronic Arts ■ Distributor: Electronic Arts ■ Available: First Quarter 2003

Love it or hate it, The Sims must do something right because it's officially the PC game with the highest number of sales, somewhere around the 13 million mark. With five expansions under their belt, Maxis could have sat back and counted the dollars or just furthered the franchise with more expansions. Instead, they've attempted to outdo themselves by taking the Sims Online.

When making your character there's plenty of variety in The Sims Online (TSO). Women get the choice of 199 heads and 178 outfits and the faces are interesting in that they range from normal everyday to the bizarre. Your Sim doesn't have to be human at all. You can choose to have a bright pink alien face, the head of a teddy bear or even the pink Gorilla from the singleplayer Sims game. There are also three skin colours to choose from when making your character: light, medium or dark.

Irrespective of gender there are plenty of outfits to model that constitute your body type, ie. thin, or fat. Of the 178 outfits available to female characters, the styles range from leisure wear (trakkies), business and formal

attire, clothing fashions suitable for young and mature characters and bikinis and bikini/sarong combinations. There's also silly costumes that allow you to be a pink gorilla, giant teddy bear, a C3PO style droid and even a rather gross skin that's an anatomical chart displaying all the muscles, veins and internal organs.

Male fashions are also varied. They have 158 heads to choose from and 121 outfits. Male outfits range from leather biker gear to Robin Hood costumes, pink gorillas, teddy bears, Santa Claus, the sad clown from single player Sims, police uniform, casual shirt and tie combos, a gladiator's outfit, lederhosen, kilts, beachware, the preppie look, military dress uniforms, 70s disco-reject attire, "happenin'" street wear, wet suits, tuxedos, western outfits and of course, leisure suits (eat your heart out Larry). Overwhelmed? You can even just wear boxers and a singlet.

Nothing to kill

The entire premise of TSO is like nothing Massively Multiplayer Online Gaming has seen. This is the first commercial online game where you don't kill anything, don't quest and don't have to

HOSTING A POPULAR HOUSE

Although the goal of The Sims Online is to have a popular place for Sims to visit, being number one can definitely have its downfalls. The house owner, ever the good host has to be highly social and make guests comfortable with greetings, the right amenities and plenty of food to eat. Chores are a big factor and hosts/roomies are often run off their feet restocking buffet tables, cleaning up messes and repairing broken items. Hosts also need to be creative to attract more guests and need to think up different contests like fashion shows or chess competitions.





The Sims must be doing something right because it's officially the PC game with the highest number of sales; around 13 million

They say that, but really it's all about the car

though that you can only have 3 Sims per account and they must all exist on a different Server. There's to be no twinkling in TSO.

At this stage in the game you have

constantly be upgrading weapons and armour. Your ultimate goal in TSO however is to be extremely successful.

Beginning the game is so radically different to anything else out there that it takes a little while to get used to. Each real world Server is geographically unique. It's hard to say whether the maps are hand made or just random but it doesn't really matter as the structure of the world bears no consequence to the game as you can travel anywhere instantly. It is important to note

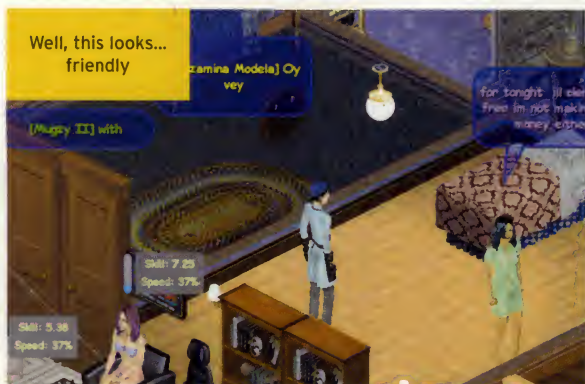
FRIENDSHIP WEB

The friendship web is another intriguing addition designed to make socialising easier. At your command is the ability to add friends and enemies to your Sims web that can be publicly viewed by anyone investigating your character. According to Maxis, the point of the friendship web is to see if you and another player have a common friend or acquaintance that may make it easier to strike up a conversation. If applying to be a roommate a common friend could vouch for you and help you secure a position in an ideal home.

two choices. You can use your starting money to buy your very own home or you can visit another player's abode and apply to be a roommate. A quick survey in-game with some experienced players confirmed that becoming a roommate is the best way to start. As a roomie you can purchase items for the house, including those that generate income for your Sim and be able to share in the use of household appliances. Even if in the early stages of your career you aren't accepted as a roommate and can't afford a house it's not a problem because even

THE PIZZA GAME - LC SS MT

The Pizza game is a good example of how money is earned in The Sims Online. In this game there are 4 stations that each Sim must man. It begins with the phone randomly ringing on one of the stations and after a short animation of the Sim taking the call a timer (you must complete each order within two minutes) starts to count down. At this point in the game each player calls out the three toppings that they hold and you try to match up the ingredients to make a successful pizza. Basically there are small, medium and large sizes for dough, cheese, sauce and toppings (such as mushrooms and anchovies). The in game community has already developed a code to communicate their ingredients with and it works quite well. LC for example equals large cheese; SS equals small sauce and MT equals medium topping. If the players don't have the necessary ingredients to make a successful pizza the oven will produce a charred mess. Like in a card game at this point you need to throw out what you suspect to be the most useless item as you will be given a new random ingredient at the beginning of each round. If everyone has a correct ingredient and manages to communicate this effectively to the group than a successful pizza will be made and you will receive a sum of money. The nice part here is that the higher the cooking skill of the team the more money you will make. Also, a Sim with high charisma who takes the call will also manage to net the group more money.



in a stranger's house every item that is required to maintain your Sim can be used. You can use the toilet, take a shower and even sleep in their bed. It's certainly a caring, sharing kind of place that EA has made.

Finding a place to hang

Upon entering the game the first sight is the world map. Here, the server cleverly represents houses with players that aren't logged in as black dots with houses with players that are logged in represented by a red dot. There's also a number of handy tools that display the most popular houses (i.e. has the most number of players currently in it), the houses that have made other players the most money, a list of places you've been to along with a top 100 list that includes the most expensive and most visited houses. A handy Search interface also lets you search for friends and houses by name. Maxis have done a great job ensuring that there's numerous means of finding places to visit and the excellent interface means you will always be able to find a place to hang out in that's right for you.

Early in the game the larger, more decked out houses are where you should be. Assuming there's the inevitable delay between the US and Australian release, this might for once be an advantage. Interviewing players that have played since day one it was soon discovered that it's a definite struggle to make the cash to extend your property as you can only afford low level job items. Big well established houses often already have all the necessities required to raise each skill and for around \$15 per meal you can live in luxury for as long as you're logged in.

Another nice feature that ensures that certain properties don't overly dominate is that the maximum number of Sims that a house can contain is 16. Far from a limitation, this nicely spreads out the population and more importantly is an effective way of managing server traffic.

Building a house

By being extremely frugal it is possible with the \$6000 starting money you're given to build yourself a small



Outfits range from biker gear to Robin Hood, pink gorillas to Santa Claus, lederhosen to kilts and wet suits to tuxedos. Overwhelmed? You can even wear boxers and a singlet.





Modern virtual living at its virtual very best



Fun, but NUDE POOL would be funner!



modest abode but it literally is going to be a boring shoe-box. It's considerably wiser to save about 40,000 Simoleans before attempting to build your own place.

Finding land isn't a problem at all because the server world is a giant two dimensional array (or grid) with tens of thousands of elements, maybe even more. Purchasing land is as easy as navigating around the server map and finding an empty spot. What you can afford though depends on the geographical locale. Land closer to the water for instance costs more than plots further inland. What's nice is that once you choose your spot, it's yours until you sell it and even when offline your house remains there on the map.

Expanding your home depends on either money or roommates. If you wanted to upsize your block of land this can be accomplished for a large fee, or by taking on roomies which then enable you to increase your land size for only 10% of the price. As a homeowner you control all the security in the house and can invite new roommates, place items that generate income when used by other Sims and also set permissions on objects such as doors. Each door can be set to allow all players to enter or owner and roommates only. You can also set a cost to go through a door (even your front door) so it's possible to create restaurants and nightclubs inside your home. And if they become popular enough, they will generate you income.

In regard to the actual building of the house, those familiar with the build-options from the single player Sims can effortlessly cross over into The Sims Online as the interface is identical. At your disposal are all the tools needed for construction such as walls, windows, lights, scores of furniture, décor objects and different types of wall paper and carpet. The number of items available is staggering and The Sims Online features every item from The Sims and all the expansions as well as new items that

Watching a virtual rock group play to a bunch of Sims casually swimming around was definitley amusing

require multiple players to operate. Particularly creative online types have already put together some great themed homes such as a haunted castle with a moat that doubles as a swimming pool, a funky diner, a swinging grooving nightclub and one of my favourites, a water theme park with a giant stage in the middle for rock concerts. Watching a virtual rock group play to a bunch of Sims casually swimming around was not something I had expected, but it was



KEEPING IN TOUCH

Keeping in touch with other players in The Sims Online is made extremely easy through the use of instant messaging systems. You can be contacted, or alternatively, can contact any player online no matter where they are. The system works really well and messages will conveniently queue up with the face of the originator and can be accessed with a mouse click.



She's a hooker in the bedroom, a cook in the kitchen, and a pot plant in the garden...





certainly amusing and it definitely elicited a smile.

Micromanagement, Skills and Socialising

In order to progress in TSO you're going to need money which requires work. Working has seen the biggest overhaul with different means available to players to make some extra cash. Certain solo activities generate a very modest income but have the advantage of raising a skill. The real money is made through the

All the micro-management from the original Sims has been carried over but with enough changes to make it more online focused

playing of games that require the co-operation of other players. Making great use of the online environment all the jobs (games) place a heavy focus on communication and whether solving a logic puzzle or making a pizza it's always necessary to interact with the others you're working with to resolve each problem.

All the micromanagement from the original Sims has been carried over and this aspect of the game is similar to what The Sims offers but with enough changes to make it more online focused. You still have to micromanage the needs of your Sims: Hunger, Comfort, Hygiene, Bladder, Energy, Fun, Social and Room but thankfully the decay rate is a lot slower than in the singleplayer version

so fortunatley it remains challenging rather than annoying.

The skills available in The Sims Online are: Cooking, Mechanical, Charisma, Body, Logic and Creativity which are the defining aspects of your Sim's ability to do their job. Raising Logic for example will allow your Sim to make more money when participating in a job that requires the Logic skill. Likewise, a high Cooking skill would make for greater income at the successful completion of a pizza game.

It's important to note that TSO places a lot of emphasis on human to human socialising and in some regards is like an extremely complex IRC client. Raising skills is a slow, almost Everquest affair when done alone, but if





You can use the amenities even in a stranger's house - it's certainly a caring, sharing kind of place that EA has created

a group of players in the same vicinity are studying the same topic the learning rate is increased and it only takes about 6 people to hit 100% learning. This is a nice touch in that it encourages "groups" of people to study together but is still ultimately very slow. Of course it wouldn't be much of a game if you could max your character out in a day and downtime like this seems legitimately geared towards socialising with the people around you. For chatty types like me this wasn't a problem but quieter types could get bored very quickly.



Graphics and Sound

Visually The Sims Online isn't anything fantastic and at the moment the only supported video mode is, *gasp*, 800 x 600. Surprisingly, this low a resolution wasn't as big of a problem as it would seem but the mixture of sprite based objects (furniture, lights, in game items) with the 3D Sims remains painfully laggy, even on an extremely high end system. The graphics engine has essentially been ripped right out of The Sims which although slow is at least stable.

Stock standard sounds from the franchise all feature in TSO and Sims matter away in their amusingly emotive and expressive "Sim Speak". A nice addition is that home owners when setting house permissions can select a series of ambient sounds to set the mood of their abode. There are no spacialisation effects such as A3D or EAX but sound is ultimately functional and works well.

In all, I was pleasantly surprised to find that The Sims Online is a quite playable, highly social game. Although I initially had my doubts, after seeing



it in action must give credit to the Maxis team who have successfully developed a refreshingly different and enjoyable online experience. The only criticism that could be made so far is that there aren't quite enough "work-games" to play but being online, hopefully Maxis will add more content with each patch. Who knows? The Sims might just become cool again.

Jere Lawrence





Only 3 of the 80 flyable aircraft in the game



IL2: The Forgotten Battles

Back to the Great Swithiod for more Tank-busting and vodka!

Developer: Maddox ■ Publisher: Ubi Soft ■ Distributor: Ubi Soft ■ Available: Christmas 2002

We reviewed IL2 Sturmovik way back in PCPP#69, and George Soropos was so impressed with its unique and highly detailed ground attack dynamic that he awarded it a chunky 93%. Since then the game has maintained its position among a particular breed of flight sim fanatics, those wild and crazy boys who like to keep it low, keep it fast, and fly through as many exploding Nazi supply trucks as possible.

However, in recent months with the likes of Combat Flight Sim 3 on the shelves (see our review on page 66) and Lock On announced, IL2 Sturmovik has begun to look a little dated, both visually and in terms of content. Lucky us then, that Maddox is even now feverishly at work on an expansion. And what an expansion. This is no cursory mission pack with a couple of extra planes thrown in for good measure, this is a serious overhaul.

Coming out of your ears

For a start, there are the planes. Forgotten Battles includes an incredible 30 new flyable machines, and 15 new AI-controlled enemy aircraft. Nazi end-of-war virtually-experimental buffs will be excited to be able to get their hands on the Me-262A-1a jet fighter and the Me-262A-2a fighter-bomber. Also included is the

Hurricane Mk I and the Brewster Buffalo F2A, both flying under Finnish colours. There's also the enhanced Russian version of the Hurricane with Soviet cannons and MGs. But it doesn't stop there: strap in to dive bombers, fighter-bombers and even a multi-crewed bomber in the form of the TB-3, but if you know anything about this aircraft you'll have the sense to rug up first. The selection is amazing, even a little bit daunting, and that's only the flyable planes. New AI machines means you'll pit your skills against or fly escort for the likes of the IL-4 bomber, the Bristol Blenheim MK I bomber (once again part of the Finnish Air Force), the Fiat G.50, and the Morko Morane which the Nazis used captured Russian engines in and sold to Finland.

Hungry for Finland

Forgotten Battles has its focus on the conflict in Hungary and Finland. There are five new maps: Gulf of Finland summer campaign, Gulf of Finland winter campaign, Hungary summer, Hungary winter and L'vov summer.

The Finnish maps include the cities of Helsinki, Tallinn, Leningrad and the Finnish Gulf itself, Kronstadt island, other island fortifications and lake Lagoda. Maddox promises that Helsinki and

FIAT G.50

The G.50 was one of the first Italian monoplane fighters. It was a basically sensible design, a nimble low-wing monoplane with an enclosed cockpit (abandoned on production aircraft) and retractable landing gear. But Italy did not have a suitable engine for a monoplane fighter, and the G.50 was slow and under-armed. There were only 780 built. The single G.50V had a Daimler-Benz DB601 engine, and the single G.50bis/A was a two-seat shipboard fighter-bomber.





Contrails! Entrails!
It's all good!



Leningrad have been accurately modelled using wartime maps from 1939 and 1940, and will include famous landmarks so dedicated history fans have a chance at navigating around the urban areas by sight.

The Finnish Gulf maps have been designed to cover the battles fought by Russia against Finland in the years 1941-1944 (Finland was 'liberated' from the Soviets in 1941 and became a Nazi ally). The Hungarian maps on the other hand include lake Balaton and surrounds, as well as part of Slovenia, so expect some ugly (but intensely exciting) combat there. Finally L'vov gives players the opportunity to take to the skies over Soviet Ukraine, some of the nastier bits of Poland, and poor old Slovakia.

Forgotten Battles will also include a number of fanciful (but WWII flavoured) multiplayer maps, including one with a massive mountain range and high altitude airfields. Get those block heaters on, ground crew scum!

Dynamic Campaign

The original IL2 didn't contain a dynamic campaign, one of the staples of modern combat flight simulators. Missions were static affairs that played the same every time, and only had set victory or failure conditions. No more! Forgotten Battles brings the Dynamic campaign to IL2!

Its model is a little different from that seen in the likes of Falcon 4, in that rather than running the campaign in the background constantly, the game loads current war conditions into the mission, collates the player's actions and performance, and then calculates the progress of the war from the end of the mission, ready for the next. So it won't be possible to get 'left behind' by the sheer speed of the campaign, like used to occur to the uninitiated in Falcon 4.

To this end, Forgotten Battles' dynamic campaign will track resources in the game world, so the more, say, Fiat G.50s the player shoots down, then the total number of Fiats in the theatre will be reduced until it will become extremely unlikely that the player will encounter this aircraft in later stages of the war. Likewise, destruction of

train lines, docks and other important supply infrastructure will dramatically affect the enemy's ability to field opposition, so as a successful campaign carries on, milk runs become more and more common.

On the flip side, the player will only have a certain number of pilots to man their squadron. Lose an experienced pilot and he (or more often in the case of the IL2, she) will be replaced by a bumbling rookie. Lose too many pilots, and the squadron will end up short-handed and it will be impossible to fill out wings, making subsequent missions even more difficult.

The conflict in Forgotten Battles rages from 1941 to 1944, and the player will be able to fly for Russia, the Nazis, Finland or Hungary.

Not just content

There's more to this expansion than just extra content, though. The very nuts and bolts of the sim - the flight dynamics - have been dramatically improved, using data from real planes and from historical notes. The engine management system will be completely overhauled, allowing real tweak-heads to fiddle their radiators, superchargers and fuel mixture to allow for improved performance at different altitudes.

Players can also create custom skins for their aircraft, so painting a saucy lady on the nose of your favourite He-111 is now a very real possibility. All of the original planes from IL2 will be available in the Quick Mission builder (except the seaplanes and gliders, for obvious reasons) making the total pool of flyable aircraft more than 80 - and when added to the AI planes, that means you can build missions using an astounding 119 different kinds of aircraft! Chunky stuff indeed.

Finally, searchlights will make 'stealthy' (by WWII standards) bombing

MORKO MORANE

The 'Morko Moraani' was created in Finland by converting French Morane-Saulnier MS.406 and MS.410 fighters to accept captured Soviet Klimov M-105P engines. The M-105P was a development of the original Hispano-Suiza HS 12Y engine, and developed 200 hp (149 kw) more. A total of 41 were converted; the engines were supplied by Germany. Germany also supplied the new Mauser 20 mm cannon and oil cooler. The Morko remained in service until 1948.



runs more problematic and barrage balloons will spice up your life in those tricky strafing missions. There will also be new naval craft including the Russian battleship Marat, Soviet cruisers Aurora and Kirov, and the Nazi cruiser Niobe (Matrix 2 fans, obviously - Ed).

Forgotten Battles will be with us by Christmas, God willing, so we can expect to spend Boxing Day ignoring our crazy uncles, aloft in the wide, wide blue sky of the Great Swithiod, blowing the crap out of those fiendish Nazi warhounds. The way it's meant to be.

Justin Hoffman



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IN REVIEW

THE MOST AUTHORITATIVE REVIEWS AROUND



58

Age of Mythology

We thought adding Gods to Age was risky. We thought moving to 3D was risky. We're very wrong. And it's good.

Are massively multiplayer online games (MMORPGs) still to be considered a new emerging genre? This would seem unlikely considering that Ultima Online was released in October 1997 making the genre five years old which to most normal and sane people constitutes industry establishment.

Yet, most people refer to MMORPGs as new and emerging which I believe is because most gamers simply aren't satisfied with their current state, roll on Everquest (EQ). Dear readers, it is time for a confession. I once was an avid EQ player (a fact that shames me now) and have a 52 Druid, 53 Monk and 35 Enchanter to show for 16 months of laborious levelling. The reason for two characters post 50 is simple - EQ let me down like it has so many other people. There was something appealing about being in tune with nature so for my first serious character I chose a Druid. I was to discover though that this character was not wanted or welcome in EQ's "high end" game thanks to the developers dropping the ball and not balancing the class properly.

So I started a monk and mounted the souring and depressing level treadmill once again. At its very core Everquest represents the slowest game in the history of electronic entertainment requiring murderous hours to achieve anything and as I was soon to discover, it only got worse.

Having a post 50 monk finally meant that I would be welcome on raids but ironically it was this aspect of the game that was "the final straw". A raid is basically a collection of 40 or more people that enter specialised zones with the intent of working through very hard zone mobs (enemies) to defeat a final extremely difficult boss mob. These might have been fun if a raid was properly designed but in typical SOE style it was another shemozzle.

Take the Plane of Hate for example. Right from the beginning, rare items of loot would be "defaulted" unfairly to the organiser's friends and if you didn't like it were told to leave. There was often much downtime at the beginning of a raid and it could take up to 2 hours to organise all the people. Once inside you would then be expected to spend 4-6 hours to complete the challenge whilst getting no experience and no reward. Gamers are getting older, we now have families, houses and chores to do, so why is it that the geniuses at SOE think that the best route to a person's wallet is to steal all their time?

But sadly, this is the model that every aspiring MMORPG developer sees as the road to riches and it has to be stopped. Whatever you do make sure you read the interview with Robert Laus in the Planes of Power review primarily for a more positive consideration of EQ and secondly to learn about the insane amount of time that is expected from players by SOE. I deeply respect Robert's achievements but have disgust for the company that made the challenges nothing more than hideous time-sinks. The truly frightening aspect of this though is that there are dozens of companies copying the EQ model. How twisted it is that development in the genre is just a further series of backward steps?

Jere Lawrence
Deputy Editor
jere@next.com.au



62

Everquest: Plains of Power

Run! Before it can ensnare you with its horror!



66

Combat Flight Sim 3

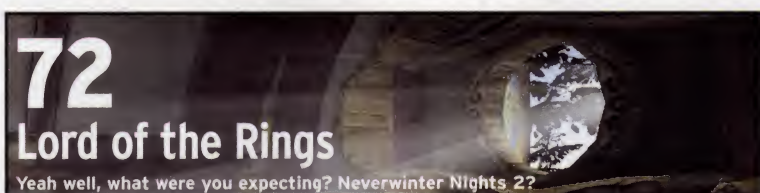
Angels-eighty, smoke me a kipper etc etc



70

Civ 3 Play the World

Civ 3 gets multiplayer. And it works!



72

Lord of the Rings

Yeah well, what were you expecting? Neverwinter Nights 2?



74

MechWarrior 4: Mercenaries

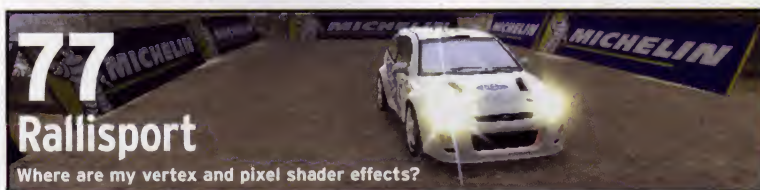
Pound them into the dirt, stomp on their tanks, and get paid for it!



76

Mutant Storm

Classic gaming with modern flavour



77

Rallisport

Where are my vertex and pixel shader effects?



78

Xtreme Air Racing

You'd be mad to try it



79

Airlines 2

Stats! Give me more stats

Age of Mythology

Developer: Ensemble Studios ■ Publisher: Microsoft ■ Distributor: Microsoft ■ Price: \$99.95 ■ Rating: M15+ ■ Available: Now

The safest bet in realtime strategy actually pays off

When we heard that there was another Age title in the offing several years ago we all tried to guess where Ensemble would take it. Some assumed they would simply move forward in time, beginning with the Renaissance era and onwards, perhaps as the Age of Nice Paintings. Fans hoped mostly for another outing in the ancient world but with even more detail, historical accuracy and better play balance. Personally, I was hoping for the Age of Aquarius with battling hippy tribes and missile laden Kombi vans but it seems, thankfully, that the fans have won out.

Age of Mythology is very much another 'Age' game but at the same time adds so many new gameplay elements that even the most jaded Age II players will be keen to see what it has to offer. New, highly refined races, gods, mythological units, god powers

heads and a few bowls of gruel on the table. Some lovely Warcraft 3 style cutscenes are used to drive the story along, a story which concerns an Atlantean hero and his quest to regain the favour of the Gods. The campaign does a good job of introducing you to most of the units and potential strategies in the context of the game, and gives the player a sense of how everything works.

It is a massive campaign that carries you and your hero from the Trojan War to the Greek underworld, into Egypt and finally into the frozen North. The design of the missions is in most cases exceptional and a good study for anyone who wants to indulge in a bit of level-building for themselves. Each mission is quite different from the last and many involve dynamic objectives that change as the situation does.

Primary Industry

Every RTS worth its salt begins and ends with resources. How you get them, what you do with them and how you defend them. Age of Mythology continues most of the resource traditions of earlier Age titles with a few important exceptions. The Favour of your Gods is the one completely new resource and a crucial difference in the new Age. Greeks gather Favour by

physically worshipping at a Temple. In practical terms this means that a swag of villagers who could be doing something elsewhere have to prostrate themselves near your Temple to gather the resource. The Egyptians on the other hand have to spend resources building various monuments which accrue favor over time. So unlike the Greeks you can't suddenly boost Favour production in a pinch. The Norse are different again and gain favor by fighting. As you can imagine this makes the Norse more difficult to play because you need to carry out continuous raids on the enemy to acquire the Favour needed to make improvements. As you can see these differences are a far cry from Age of Kings' unique bonuses and units, a real improvement.

Favour is crucial as it's used to build your myth units. Each culture can build an array of these units, as well as superhero units based on mythological heroes such as Jason and Hercules. The type of myth units and heroes available to the player depends on the Gods they worship.

The way that the different races generate Favour and the way that their



Same Age flavour, funky new 3D coating

Even the most jaded Age II players will be keen to see what the game offers

SYSTEM

NEED

P2-450
128MB RAM
16MB Videocard
1.5GB HDD

WANT

P4 1.8GHz
256 MB RAM
64MB Videocard
1.5GB HDD

MULTIPLAYER

Yes

ONLINE

www.vmyths.com
Of course you want to know about virus and internet security hoaxes and myths, and this is the site to visit. Nicely archived, too.

and a new 3D graphics engine should be enough to whet any RTS gamer's appetite.

The Story So Far

Age of Mythology's singleplayer campaign centers around a story-driven epic spanning 34 missions where you control the fate of the Greek, Egyptian, and Norse people in their struggles to put a goat skin over their



So detailed you can smell the salt



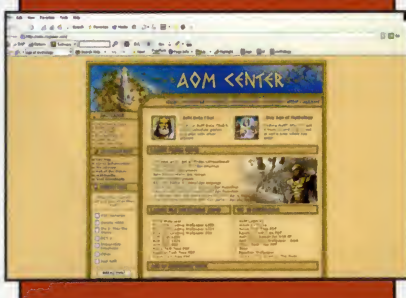
Wall-busting at its best, now with added dragons!



Resist the urge to always pick the hot chick

ONGOING SUPPORT

With the huge fan base of the earlier Age titles to draw on web based fan support for AOM will be huge. The quickest way to get mission tips, editor guides and even technical support can be from the forums on fan sites. Whether you want cartoons, fiction, new friends, strategy advice or new missions and campaigns these sites are a good place to start:
<http://aom.heavengames.com> and
<http://aom.rtsgamer.com>



heroes are used in battle makes for a lot of interesting gameplay variations right off the bat. The Greeks can generate Favour pretty easily, but cannot have as many heroes on the battlefield as the Norse. The Norse on the other hand can have many heroes in the field but cannot earn Favour as quickly as the Greeks or Egyptians. On top of that the different cultures accumulate and use resources differently.

The Norse use their burly infantry for construction, while their worker units are used only for gathering resources. The Norse also use ox carts as mobile drop-off points for resources, rather than the stationary structures of the other civilizations. The Egyptians don't build structures as quickly, but do not use wood for making them which means that the player can focus on Gold and Food when they are building up their base. The Greeks are more traditional in their resource management, being like the old-school Age II Greeks.

Norse by Norse-west

The Norse are a fascinating race in Age of Mythology as a result of their resource management practices. To paraphrase Greg Street, one of the game's lead designers, any Norse infantry unit can build. This has some amazing gameplay ramifications: Norse towns tend to sprawl across the map because a scouting Ulfsark will just drop houses wherever he is exploring. Norse are great at claiming settlements because as soon as they knock down an enemy town center, the same units can build a new one in its place.

The Norse gatherers also get a huge advantage over their competition in resource gathering with the Ox Cart. Norse players don't need to invest in buildings like lumber or mining camps as they get one unified, movable, drop site. The Ox Cart can be built at your town center, and can move and follow your gatherers around the map. As you clear out one gold mine or forest you can move your Cart and villagers to the next one,

AOM arguably represents the most refined example of the RTS genre to date



Zeus was 'ere



Blasphemy is bad, mmmkay?



while the Greek and Egyptian players have to build new mining camps.

New Recruits

All RTS games let you play as one of a number of different races, species or factions. Warcraft 3 focused on just four races, a situation that made for some outstanding gameplay due to the tactical differences and careful balance between all four. Yet in the Age of Empires series, which featured large numbers of playable civilisations, the differences between civs was much less obvious as many of the factions shared units, strategies, and even graphics. Age of Mythology brilliantly combines these two philosophies by offering you the chance to control one of three radically different

civilizations, as well as three different subsets of each one based on these respective cultures' major gods.

During the course of a game you'll get to ally yourself with a number of different minor gods, each passing on their own unique benefits to your race. Not only does allegiance to each particular deity give you special bonuses, you also get four once-only miracles, unique mythological units of some sort, special technology, heroes and a lifetime subscription to Deities Digest (now incorporating New Idea). This ability to choose between three races, nine major Gods, and 27 minor Gods adds up to a huge amount of variety without sacrificing play balance, quite a brilliant feat on the part of the designers.

Age of Mythology incorporates an intriguing balancing act which is quite a bit more complicated than the simple rock-paper-scissors approach seen in most RTS games. On top of all the different resources to manage, myth units and heroes to summon, there is also a wide variety of conventional forces to play with as well. Some of these are very specialized for fighting other specific types of units, and all can be upgraded. While myth units can often mulch conventional forces quickly, you still need to balance your myth units within your standard forces. Myth units can't be produced as quickly or cheaply as conventional forces and conventional soldiers are better suited for overwhelming enemy heroes!

Populate Or Perish

Age of Mythology has also changed the way population limits are handled. Instead of building masses of houses the key here is the settlements. Each town center can handle only a limited amount of people so to solve this problem players must capture new settlements, which in turn will allow you to build more houses and increase the population limit of your settlement.

Another interesting twist to the traditional gameplay of the Age series are the new relics and their powers. Hero characters are the only ones who can retrieve the relics found around most maps. In Age of Empires retrieved relics generated a small supply of gold however an Age of Mythology relic has a number of unique relics that give the player some rather dramatic bonuses. This, and the need for new settlements, has basically made scouting a much more important part of the game than ever before.

A choice of 3 races, 9 major Gods, and 27 minor Gods adds huge variety without sacrificing play balance

Sound and Vision

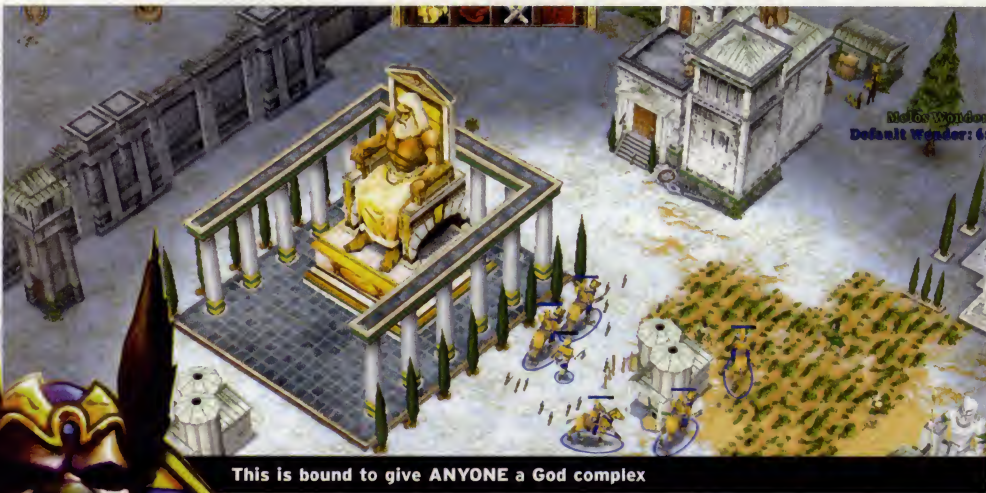
Of course AOM's other big departure from tradition is its fabbo 3D graphics engine and tweaked interface. Frankly I don't think the new Age looks as nice as Warcraft 3 and the engine is certainly slower. On a 1GHz CPU with 512Mb RAM, and a GeForce4 Ti 4200 I had to keep the resolution at 1024x768 to keep the framerate up during battles. It is however nice to be finally able to rotate the camera around the action and get a good look by zooming in as well. However the character animations are probably the best feature of the new look graphics engine - especially the Cyclops who is a treat to watch when he starts throwing your enemies around ragdoll style! The deformable terrain provides another nice graphical effect when certain god powers are invoked, for example the meteor shower will pound an area leaving permanent marks on the ground.

Kevin McMullan and Stephan Rippe have composed a breathtaking musical score for Age of Mythology and, for the first time in the series' history have had it performed by a full orchestra. The music

ENSEMBLE ONLINE

The Ensemble Studio Online represents a new move for Microsoft, creating a dedicated online service for one particular game. The advantage of ESO is in its method of searching for other players who want to play a similar kind of game to your own preference. Select the kind of game and its rules in the ESO menu and the program will search the Net to find the closest match. It will even translate your correspondence, allowing you to play foreign devils who no speaks the English!





This is bound to give ANYONE a God complex

is beautifully atmospheric, even inspirational at times and helps to draw the player into the game world.

As well as the great music the game features excellent sound effects and great voice acting. McMullan and Rippy have created their own library of sounds for the game, and it is obvious as the game rings with their original sounds, not sample CD specials. The voice work is done extremely well, unit types for each race have different voices and the cut scene vocals are outstanding.

Well, we're nearly at the end of this review and we haven't even mentioned the skirmish modes! The random map, or skirmish, mode is very similar to that of Age of Empires II except that it lets you choose from a significantly wider variety of settings. The deserts of Egypt, to the frigid plains of Scandinavia, and the mythological Greek underworld. You can play with or against as many as eleven other computer-controlled players, and their behavior can be adjusted independently.

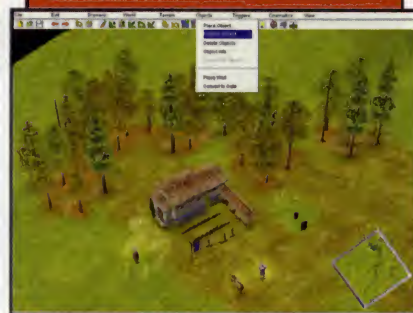
There is one new game type called Lightning which, as you might imagine, places the emphasis on speed and efficiency, making the players move their mice around like gamers possessed!

Age of Mythology arguably represents the most refined example of the RTS

genre to date. It gives you the impression that the designers spent a lot of time adjusting and tweaking the gameplay, and thinking up ways to give the game plenty of lasting appeal. Something that doesn't always happen in the ever more bottom-line oriented games industry.

DIY HEAVEN

We didn't have time to mention the editor in the main text but that doesn't mean that it isn't worth a look. AOM's editor has been refined from the earlier Age versions and as a result is the best, easiest to use yet. Most importantly, for the purpose of creating campaigns, the trigger system for guiding events and story actions is the easiest to use we've ever seen making even the most complex situations a breeze to set up.



George Soropos



Hannibal's parties always end like this



Jumbo 4: The Revenge



Looks friendly and colourful, but really it's a hotbed of pagan sin

RATING

FOR

Careful balance
Clever resource management
Great mission design
Online multiplayer

AGAINST

Need hi-sys specs
Not as cute as Warcraft 3

OVERALL

The Age series is back in its finest incarnation yet. Not just a sequel, but an important step in the evolution of RTS

93

Everquest: Planes of Power

Developer: SOE ■ Publisher: SOE ■ Distributor: Ubisoft ■ Price: \$59.95 ■ Rating: MA15+ ■ Available: Now

More SOE elitist crap for high levels only



Doom 3, eat your heart out



Uh Flicka, are you sure you really ARE my friend?



Now that's what I call environmental geometry!

questing but rather killing stuff.

Besides a number of new zones and monsters to kill, EQ:POP throws you back onto the levelling-up treadmill once again with 5 more levels to achieve (making max level now 65), new buyable/questable spells and new teleporters.

Content for new players

Unless you're over level 60, this expansion is virtually useless. However Sony Online Entertainment does dangle a large carrot to entice low level players. To explain requires some history. With the Shadows of Luclin (EQ:SOL)

THE PROFITEERING NEVER ENDS

Aimed at the stupidly addicted, Everquest Instant Messenger (EQIM) is SOE's latest effort to squeeze every cent out of the customer base they can. EQIM is basically a chat client that connects to the main EQ chat server and allows players to talk with friends in-game from the outside. The blurb speaks for itself. "Stuck at work but want to monitor your guild's big raid? No problem! EQIM will keep you in touch with people and on top of events in your EQ community." Scary.

SYSTEM

NEED

PII400
128MB RAM
3GB HDD
DX8.1 32MB
Videocard
Any Windows

WANT

P4 2.4Ghz
512MB RAM
DX8.1 64MB VideoC.
3GB HDD

MULTIPLAYER

Damn Straight

ONLINE

eq.crgaming.com
Caster's Realm, one of the best EQ sites out there with a wealth of information. Even better, it's run by an Australian and FREE!

The zone-based nature of Everquest (EQ) has allowed it to be easily expanded with little need for redesign, and more importantly offers seamless integration with previous installs. As each zone is essentially like a "wad" file (Remember that one, Doom editors?), the developer can make new zones (which are massive maps or levels) that can be bundled up and easily added to a current install. Planes of Power (EQ:POP) represents Everquest's fourth expansion

and even though the release has been smooth compared to the previous Shadows of Luclin (EQ:SOL), this is an expansion that every EQ player under level 60 should really steer clear of.

Planes of Power is an extension of the planes - zones for high level player groups who want to 'raid' for loot and special items - that were introduced (with a patch) in the very first Everquest. The Planes of Fear and Hate were raid zones designed for 40 or more people above level 46 and

challenged players to clear the zone and eventually vanquish a god in the hopes of getting an item of dropped loot. EQ has always provided a rich tapestry of gods and factions and with EQ:POP (when combined with all the previous expansions) it's now possible to kill them all - which is essentially the very core of EQ, not



Puff! You bastards killed puff!

STOP THE INSANITY!

SOE recently announced that Everquest will become available for Handheld/Pocket PCs (ie. Jornada and Ipaqs). Basically an isometric dungeon based RPG, Everquest Pocket starts you in the city of Freeport where you must defend it from rising forces of orcs and the undead. Famous zones, East and West Commons, Befallen and others feature and the Pocket PC install base should coincide nicely within the average demographic for EQ.



Find the baby, slay the beast!

expansion, teleporters in the Nexus - the teleporter terminal used to transport players from Norrath (the original world) to Luclin (the moon) - were to make travel around Norrath easier but were annoying because the teleporters only activated once every 15 minutes.

EQ:POP now offers what EQ:SOL should have done in the first place: clickable teleporters that work on demand. It's rather like blackmail really. Pay \$60 for faster porting or wait 15 minutes at a time in the Luclin Nexus. Entering the Plane of Knowledge (the EQ:POP equivalent of the Nexus and the starting point for the expansion) at least is easy, since all the starting cities and other prime locations across Norrath now have books that when clicked instantly teleport you to the Plane of Knowledge. Here you can buy new spells and items for non-quest based trade skills as well as being able to teleport back to Norrath again.

And that's about it. Any magic-using



I'm confused...

newbies (or lowbies, as EQ players call them) under level 50 will gain access on average to a whopping three new spells. The most insulting inclusion is a Beastmaster spell that shrinks your pet to stop it getting stuck in caverns, corridors and doorways, which WAS A BUG! Why do EQ players have to buy a \$60 expansion to get a bug fix? Probably because SOE knows we'll pay for it.

High Level content

EQ:POP is a high-level expansion and although SOE states that you can enter the Plane of Tranquility (the easiest of the new zones) at level 46, the player-base disagrees. Unless you're level 60, no one is going to want to group with you, plain and simple.

With 5 tiers to conquer, the high-end EQ:POP game is more like a traditional adventure and is better structured than previous expansions. In order to move on to another zone such as the Plane of Storms or Valour, it's necessary to complete a quest in the Plane of Justice.

Tracking your quests though is stupid as it's necessary to ask The Sage in the Plane of Knowledge, who will tell you your currently active quests. HAVEN'T THE DEVELOPERS HEARD OF QUEST



Boss mob or giant licourice allsort?



Shadowfax has prostituted himself!



Lightmapping is for pussies!

The high end EQ:POP game is more like a traditional RPG and is better structured than previous expansions



This is what everyone has been waiting for... yawn

WHAT'S NEW?

Changes from EQ: Shadows of Luclin to EQ: Planes of Power
 New user-interface
 Command line playback of mp3s, plus all EQ music is now mp3
 Items have better focus effects but not better stats
 New Tradeskills
 Poison for Rogues
 New Alternate Advancements and Abilities
 Stat cap has been raised from 255 to 305
 On-screen compass tied to Sense Heading
 Rumoured to be new Epics but no one has found them yet and doubt their existence

WARNING! Hardcore Everquest dialogue!

Talking Everquest Interview with Robert Laus

So you want to play
Planes of Power? Well
this is the kind of
character you'll need...

VABTOO DEETOO

Level 65 Monk, #1 player on the original Bristlebane
EQ server, Leader of Arch Overseers

Seeing as my level 52 Iksar monk wasn't 133+ enough to go to EQ:POP, we secured the talents of Robert Laus, number one player on Bristlebane server and fellow Aussie to take us for a tour. He was also kind enough to give us this interview discussing his thoughts on Planes of Power.

JL: How long have you been playing EQ?

RL: 1 month after it was released. So 3 years 7 months.

JL: What drew you into the game?

RL: I was a big Ultima Online player and heard that EQ was to be the next big MMORPG so was looking out for it. Once I started playing, what drew me in was the social aspect of the game and for its time, the excellent graphics - it was the first fully 3D MMORPG.

JL: How many hours a day do you play Everquest?

RL: On average 8 hours a day.

JL: Have you had any negative experiences with Everquest?

RL: One of the big negative aspects is that you can sometimes neglect the real life stuff and play too much.

JL: How many characters have you made level 60 with?

RL: Four characters in total (a Necromancer, two Monks and an Enchanter). I had to re-roll my current monk which is now my favourite. He's the one I've kept up to 65.

JL: Do they all have epics? (Epics are weapons that require the completion of

extremely complex 100+ hour long quests to obtain.)

RL: Yes.

JL: You're a freak.

RL: Hehe.

JL: What's your greatest Everquest achievement?

RL: The Emperor in Luclin.

JL: What did it involve?

RL: It was a complicated procedure that took five months. In order to defeat the Emperor you first needed to collect keys for each guild member, bane weapons for the melee then solve the actual encounter. The key itself is in four parts, the first three parts could be resolved with one group but the last part required 4 groups (24 players). To get the bane weapons it was necessary to "farm" the Luclin mines for the basic weapon which when combined at a forge with a special kind of ore made a bane weapon. This wasn't too bad because you can get a weapon while farming for the key. Getting the ore however took about 1 - 4 hours of farming skeletons. Getting it all together and motivating the people in the guild was really difficult and one of the biggest time sinks. After a while people who had been helping getting keys and ore for so long became terribly unmotivated and there always seemed to be someone out there

STATISTICS:

Estimated longest time
spent playing without
sleep: 40-48
consecutive hours

JOURNALS? Probably, but something this convenient doesn't "keep em playing to keep em paying".

Trials

Further content in EQ:POP is accessed through the completion of trials. These are dungeons that only allow a certain number of people to enter at a given time. Some trials allow for one group to enter, others require four groups. The most pitiful and yet most Everquesty sight I observed was ten groups of people (ie. 60 players) lining up to enter one of the trials. It takes approximately 15 minutes to complete a trial and once done, the dungeon shuts down for 30 minutes, presumably to "recharge" although the dungeon could be repopulated instantly if SOE wanted.

So for example, if you are the tenth group waiting to enter the trial, and all the preceeding groups ahead of you were successful then you will be waiting 6 hours, 45 minutes. A quick interview with



one poor soul waiting in line revealed that this was his 30th try. The mind boggles.

Flagging

This is unique as it's both a bug-fix and a "new feature". Flagging does away with keys and multi-questing. Now when a key is used, your character is "flagged" for



who didn't have their key yet. They had a lot of trouble getting support because the people who had done it over and over again before just weren't very interested.

JL: With everyone geared up, what was the encounter like?

RL: The fight stage needed to occur in two phases. First you had to break and control the room and the second phase is to hold the area and kill the Emperor at the same time. We started with a series of drills where a small group of about 30 people would try and break the room, hold it and then keep respawns under control which took us about three or four attempts to get

STATISTICS: Biggest achievement: Emperor in Luclin - five months, 49 players, six attempts.

down pat. We then assembled the guild together and attempted the Emperor which took 6 attempts to bring him down. It was such a relief after 5 months of getting people ready and motivated because we all wanted to see the end game of Luclin which was Vex Thal.

JL: Did you make it to Vex Thal?

RL: Yes, but it was another serious time sink. You needed 10 shards which could take up to 24 hours of straight farming to get. Some people were really unlucky and it took longer. You also needed an orb of Luclinite which comes off any high level (large encounter) mob in Luclin and the power source from the Emperor. Luckily he drops 40 power sources at once so we could do one third of the guild at a time.

JL: How many times have you killed the Emperor?

RL: We've killed the Emperor about 15 - 20

STATISTICS: Average playing time: 8 hours per day

times now and in our best effort managed to do it with only 49 people.

JL: What's the best item on your level 65 character?

RL: Talisman of Vah Kerrath
Stats: AC: 35 - Wt: 0.4 - Slot: Neck
Attributes: STR+15 DEX+15 AGI+15
STA+15 CHA+15 INT+15 WIS+15
HP+125 MANA+125 SV POISON+20 SV
DISEASE+20 SV COLD+20 SV
FIRE+20 SV MAGIC+20 (LORE -
MAGIC - NO DROP)
Effect: Blessing of Vah Kerrath (8 mana, 8
regen, 8 atk and Unlimited Charges)
Comment: Found in The Umbral Plains

JL: Is this the best item in EQ?

RL: Yes, for the moment. I'm hoping there will be better items in Planes of Power.

JL: How did you get it?

RL: By killing the boss mob in Vex Thal. She drops an essence which you then have to quest (ie, run around in the game for another 12 hours talking to NPCs before you actually receive the Talisman).

JL: Do you think that EQ is a fair game?

That all the players are given a fair go?
RL: No I don't think it's fair. Everybody wants the good stuff but there isn't enough and those who get it become elitist. Time zone also plays a big part. For raiding, Euros have a big advantage because the patches happen at 3am PST time and when the servers come up it's at an excellent time for Euro/Aussie players. With each patch, the zones are reset which means that Vex Thal was repopulated again and because of the time, we ended up monopolising it, and as it was the only zone with all the good items, everyone else missed out.

JL: If a person wanted to succeed in EQ like you have, what sort of advice do you have for them?

RL: They need to build a good reputation but more importantly they're going to need time to play. To get to the end game they're going to have to average about 4 hours a day. You need the time because the people in the uber-guilds won't even consider recruiting that player unless they see him often. Another thing is that uber-guilds need people they can rely on when they're raiding.

JL: What is your honest opinion of the latest expansion, Planes of Power?

RL: It's a great release with minimal bugs. The graveyard is a nice inclusion and the trials and tiers seem quite good too. If you can play a lot and are planning on the high end game and love EQ then it's good.

JL: Do you think it's unfinished?

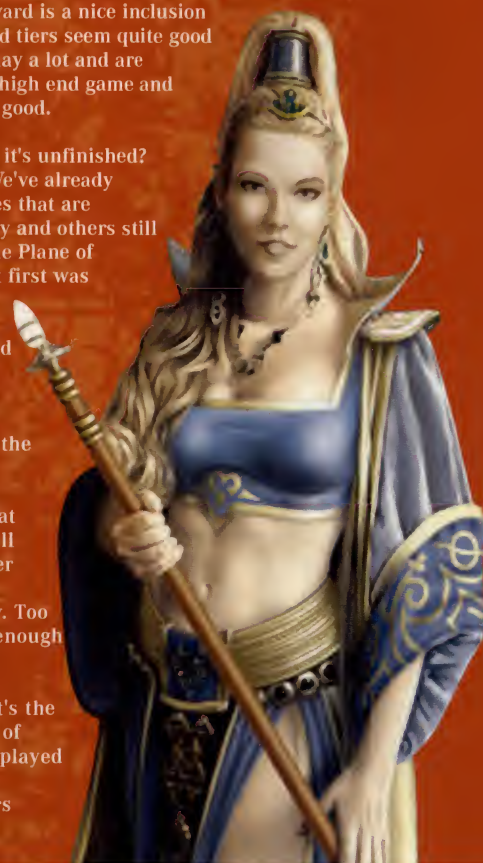
RL: Definitely. We've already found some zones that are completely empty and others still in testing like the Plane of Honour which at first was dropping loot like crazy, but then SOE patched it and this stopped.

JL: How good is the loot in EQ:POP?

RL: Crap so far. We're hoping that Tier 4 planes will have much better loot, but risk vs reward is askew. Too much risk, not enough reward.

JL: Finally, what's the longest number of hours you have played without sleep?

RL: 40 - 48 hours straight.



that area and you never need that key again. A nice touch but is it worth \$60? Me thinks heartily not.

The downside to flagging is that a previous tactic called multi-questing is no longer possible. Once upon a time you and your fellow players could get together to gather the numerous items for a quest (even non-tradable items) knowing that the person who hands in the last item to the NPC will get the reward. Now however, the person flagged for the quest must retrieve and also hand in ALL the items themselves. Naturally, this is a complete stuff around. Most EQ players thought multi-questing was fair but SOE isn't interested in the mere mortals (player opinions), only their cash - I hope we're all catching on to a common theme here kids.

Raid groups

Another function that was supposed to ship with EQ:SOL but never did was the ability to form large groups for high-end

encounters. Raid groups now allow for 10 normal 6-player groups to join together and share experience, with the raid leader able to set looting rights. Previously, the group that did the most damage got the experience to the detriment of everyone else. Considering that raids can go for 4-8 hours a lot of people logged off with neither experience nor loot - now at least they'll get some experience.

Not-so-common graveyard

Each zone in EQ:POP has a small graveyard at the entrance that receives your corpse 15 minutes after you die. Should a raid wipe out and you need to go to bed or leave for whatever reason you can logout safe in the knowledge that your corpse and hard won items will be accessible when you next login - though you'll still need a cleric to resurrect you. A true "common graveyard", ie. one central graveyard zone, would have been better.

Meanwhile, experience-grind combat

remains pretty much the same in EQ:POP though they've reduced the amount of time it takes to kill an encounter. Luclin boss mobs (high level monsters) would take from 15 minutes to 1 hour to kill but in previous expansions, but in EQ:POP the average time it takes to kill a god with 60 people is now a more reasonable 5 minutes.

Sound has also been improved and now uses mp3s to playback the in-game music or alternatively you can use new command line functions to play your own mp3s. The new music is nothing spectacular and the in-game sound effects are as dead as they've ever been.

Although Luclin "raised the bar" in graphics, compared to even average modern titles EQ looks very dated. There are a few new particle effects for spells and some very average particles on boss mobs but overall it's your same low-polygon world. With Luclin models turned off, at least it doesn't lag on older systems.

Jere Lawrence

RATING

FOR

Very stable
Clickable teleporters
Graveyards

AGAINST

Useless to newbies
No quest journals
Paying for bug-fixes

OVERALL

You'll discover that EQ:POP is more of the same poop, but now with a very slightly different smell

45

Combat Flight Simulator 3

Developer: Microsoft Games ■ Publisher: Microsoft ■ Distributor: Microsoft ■ Price: \$99.95 ■ Rating: TBA ■ Available: TBA

Microsoft takes it to those pesky "Jeres" once more

SYSTEM

NEED

PIII / Athlon
256MB RAM
32MB Videocard
1.3GB HDD

WANT

Intel P4 2Ghz
512MB RAM
64MB Videocard
1.3GB HDD

MULTIPLAYER

Yes

Is the above sub-heading a touch confusing? That's probably because I decided to make a pun out of my name. For those that don't quite get it, my name is spelled Jere but pronounced Jerry. There we go; I just heard the penny drop.

The Microsoft Flight Simulator range of products is synonymous with high quality and amazing realism. Since the first monochrome Flight Simulator created by Sublogic and published by Microsoft in 1980 combat flight simulation has always been a popular and desirable addition. Hands up all those who can remember the dogfight option from the original MS Flight Simulator that allowed you to fly a bi-plane in a completely wireframe world against a rather AI-poor opponent.

Back to Europe

While CFS1 involved a series of European campaigns, CFS2 took us to the Pacific for carrier-based archipelago action and now CFS3 returns to the European front once again. According to the developers, this is because they're using a new game engine and wanted to return to where it all began. Another reason was due to the incorporation of a tactical game into the simulator where the targets you selected would affect the overall war. Europe with its many bridges, factories and V1 rocket sites offered the perfect scenario for tactical campaign management.

Set in the early months of 1943, players



THERE'S DOGO, AND THEN THERE'S CFS3!

Perusing the help in CFS3 for simulation buffs will amount to an almost religious experience - the in game help is just so comprehensive. Every plane has a different start-up sequence and corresponding in the help a different flight manual complete with a pre and post takeoff checklist. Big deal you say? Not so. In that entirely cool but totally anal "simulate it to the finest detail" kind of way when you jump into a different aircraft you need to use the checklist just to start the engine(s).



Unexpected guest? Expect violence

GETTING ARCADE ACTION OUT OF CFS3

Sure CFS3 is a serious flight sim but who says it has to be played that way? For a more arcade oriented experience, from the realism menu set ammunition to unlimited, auto rudder on and flight physics to medium.

Once you've begun a mission, follow the on screen help to start the plane. With engines started, throttle to full, roar down the runway for about 10 seconds then gently pull back on the stick until airborne. Give your squad an additional 10 seconds to get airborne then press [X] to warp to the target.

Upon arrival, hit the [TAB] key to cycle through targets, purple ones are your objectives. *Line yourself up and press the tilde (padlock) key [~]. This will lock your eyes onto the target and is useful on an attack run. Follow the padlock view and go in guns blazing and remember to use rockets and bombs if you have any. Once past the target hit [~] again and if the target isn't destroyed wait 7 seconds, turn around and start from the asterisk (*) marked in this paragraph. Repeat until all objectives are eliminated. Warp back to base [X] and don't bother landing. When the "Mission goals resolved" popup appears, click the "Debriefing" button.



Camo body, bright yellow nose. The British: go figure

can enlist and fly for the US Army Air Force, the Royal Air Force or the Luftwaffe as either a fighter or bomber pilot. A good choice for sim newbies, the bomber offers numerous advantages, mainly because you can opt to be a gunner. Once airborne you can change to any number of gunning positions and the AI will take over flying the plane. This part of the game was great fun because of the immediacy of the action. There's no constant vying for an enemy's six, if anything the enemy is more than happy to come to you and in return receive a welcoming spray of bullets. The gunning positions also give you an excellent insight

into the bravery of the men that flew these missions. Literally stuck inside a polymer bubble, gunners were easy targets for stray bullets and the flak bursting all around you is harrowing enough in a simulation, it must have been terrifying in reality. Another plus is that you can

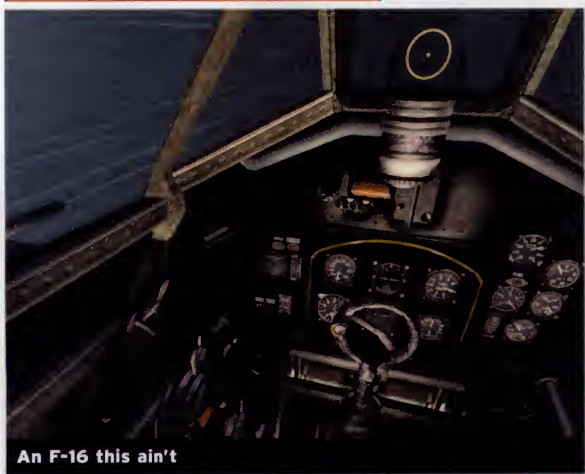
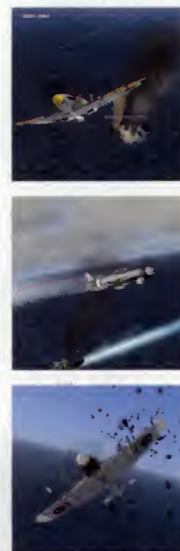
There is no option for the CPU to manage campaigns, so players are going to have to employ their own strategies and tactics

swap to the bombing reticle and let loose with powerful bombs to waste a target.

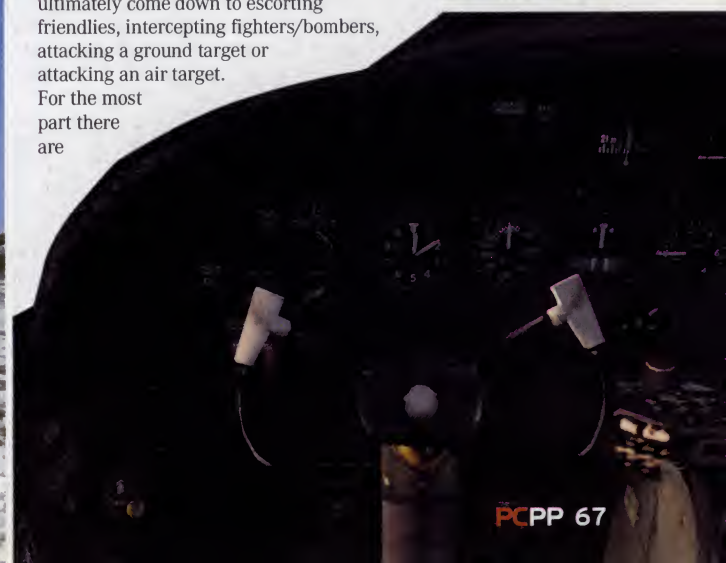
Dynamic Campaign

Whether you choose to be a bomber or fighter pilot, the way that missions are selected and your impact on the conflict is handled through the campaign manager. Quite a complex interface, the strategic map shows the current state of the war and allows you to view the front lines and sectors available to attack or defend based on the type of aircraft you're using and its maximum range. The front lines are represented by a thick red line and in the early stages of the game will be in the middle of the English Channel because the war has only just begun. The challenge is that the war can go either way and a German player could end up invading Britain if he played his cards right.

Once a sector has been selected, based on the terrain, a mission can be flown. Although there are many numerous targets to shoot down or bomb, the missions ultimately come down to escorting friendlies, intercepting fighters/bombers, attacking a ground target or attacking an air target. For the most part there are



An F-16 this ain't



RPG ELEMENTS

What's this? More RPG elements being added to our games? This time it's your pilot-avatar and squadron that get the "tweakable numbers" treatment.

To further your character, three skills can now be raised:
G-tolerance: Pull turns harder and longer before you start to blackout and become fatigued.

Vision: See and identify aircraft from a greater distance.

Health: Makes you more likely to survive a wound.

As well as skill points but based on the effectiveness of your mission, prestige points are also rewarded which allow you to upgrade your and the squad's aircraft, transfer to a new airfield (so as to penetrate deeper into enemy lines) or launch a ground offensive.

numerous mission choices available in each sector all of which are contextually accurate. Choose a sector in the sea and you can elect to take out destroyers or cargo vessels. Change to the front lines of Western Europe and you could be requested to attack infantry or artillery positions.

There are numerous enemies to destroy but while the mission objectives are varied, your role of either attacking air or ground targets remains the same. What does change though is the level of difficulty of each mission and the surrounding support units. If you select a mission from a sector where there is heavy fighting you can watch the battle wage below for a nice frenetic element but more importantly, you can alter the course of the war.

To test this, I saved before embarking on a mission and deliberately let my target (a convoy of German tanks) reach their destination. By doing nothing, the tanks were able to capture a sector along the front lines which created a weak link that the AI then went and reinforced. Upon re-loading, repeating the mission and destroying the same tanks the sector remained in allied hands. In another mission a lack of

ammunition negated my ability to destroy the tanks. Quite conveniently, a group of allied tanks were travelling on the same road as the targets and happened to cross paths. The weakened nature of the enemy meant they were swiftly defeated and the mission was successful.

It's all about resources

It is important to consider that CFS3 doesn't feature any kind of mission structure or story-line that walks you through from beginning to end so those who need Hollywood theatrics will be disappointed, a reason attributed to the lack-lustre response from the community. This is curious because the whole "dynamic battle" and "virtual war" mission structure has already been featured in games like EF2000 and numerous Janes simulations so it's not like CFS3 does anything freakish. If anything, it's more hardcore which a certain audience will appreciate.

At the core of the Dynamic campaigns in regard to victory are "production centres". Your goal is to deny the enemy his centres

It's realistic, and that after all is the attraction point of a simulator, isn't it?

and to protect yours at all cost. Supplies are represented by a "barrel" at the campaign screen and destroying enough production centres stops the enemy's ability to produce weapons of war. As there is no option for the CPU to automatically manage the campaign, players are going to have to employ their own strategies and tactics to succeed which



adds a nice strategic element.

Realism

Right from your first mission in CFS3 you quickly learn why WWII pilots stamped effigies of their victims on the side of their aircraft - they did this because fighter planes are damn hard to shoot down. The very essence of CFS3, as the name implies, is flight simulation and



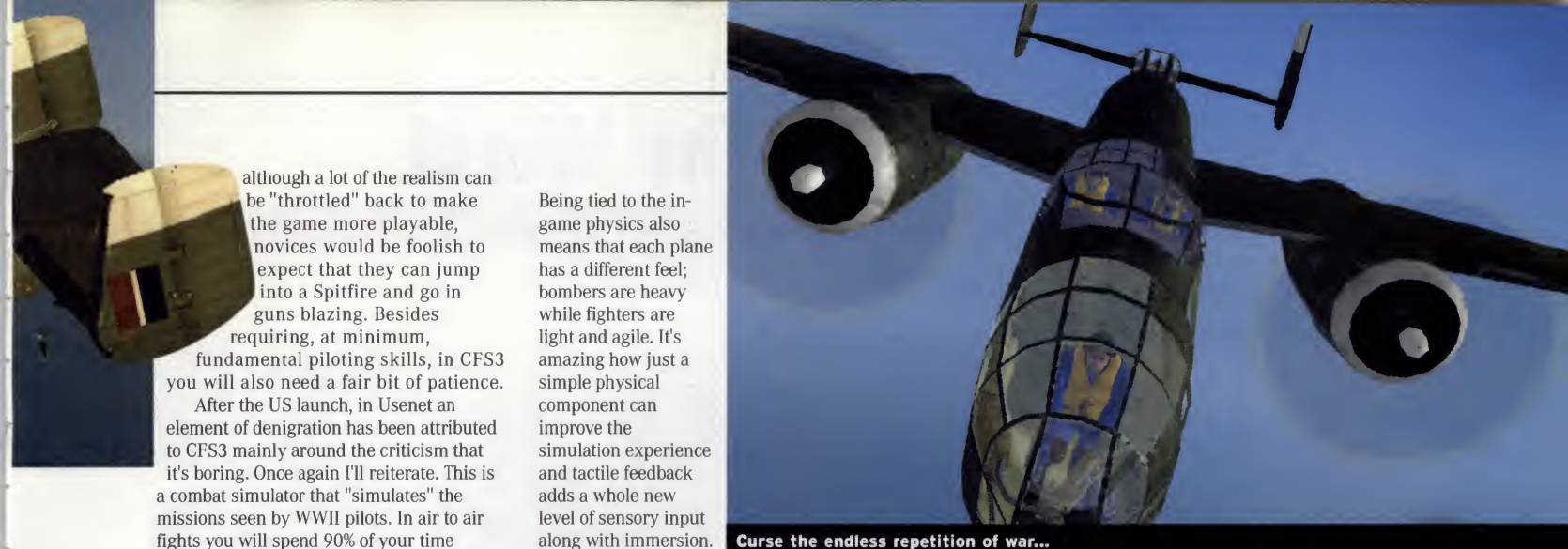
This is going to hurt



Whatever you do, don't call him Big-Nose



Safe home for another death-defying debriefing



Curse the endless repetition of war...

although a lot of the realism can be "throttled" back to make the game more playable, novices would be foolish to expect that they can jump into a Spitfire and go in guns blazing. Besides requiring, at minimum, fundamental piloting skills, in CFS3 you will also need a fair bit of patience.

After the US launch, in Usenet an element of denigration has been attributed to CFS3 mainly around the criticism that it's boring. Once again I'll reiterate. This is a combat simulator that "simulates" the missions seen by WWII pilots. In air to air fights you will spend 90% of your time trying to manoeuvre to an enemy's six. In air to ground strikes for each failed strafing or bombing run you will need to level out, turn around and do it all over again. It's realistic, and that after all is the attraction point of a simulator, isn't it?

Force Feedback and physics

Considering the number of excellent Force Feedback (FF) joysticks out there in consumer land it's surprising that more games haven't taken full advantage of this fine device. We tested CFS3 with the Microsoft Force Feedback 2 joystick which was natively supported, but you should get near identical results from any DirectInput compatible device.

You will definitely want a FF joystick for CFS3. Now I've never actually flown any kind of WWII aircraft so I can't vouch for effect authenticity but the force feedback effects are fun and bring an excellent physical component to the game.

There are an abundance of FF effects; start the engine of a fighter plane and you'll feel a shudder as the blades spin up. Start the multiple engines of a large bomber and you will feel each one roar to life along with increased vibration from the joystick. Roar down the runway and the stick shakes from the uneven surface. Fire your guns and the obligatory rat-a-tat jarring ensues.

Most impressively, the FF effects are tied into the physics of the world. If you're in a tight turn pulling some Gs, the resistance of the controller is greatly increased. When you come out of the turn, reducing the forces in play, the FF effects respond appropriately. In fact the whole FF system seems to be tied in with the game physics so that instead of a set of pre-programmed effects, the forces constantly change. Even the weather will affect your controls and if it's raining the aircraft handles a lot more sluggishly and the FF will resist you more.

Being tied to the in-game physics also means that each plane has a different feel; bombers are heavy while fighters are light and agile. It's amazing how just a simple physical component can improve the simulation experience and tactile feedback adds a whole new level of sensory input along with immersion.

Graphics

Visually, CFS3 looks superb. The models of all the aircraft are extremely accurate and feature nice high-res textures. Lighting is fully supported and specular highlights reflect off the fuselage based on the position of the sun. Aircraft are also customisable and you can select your own decal, plus change the colour of the nose/prop, the edges of the wing and the edges of the vertical stabiliser.

Numerous weather effects abound. Snow falls realistically and severely affects visual flight with rain being equally oppressive. All the weather effects look great and clouds, the instruments of weather are fantastic. Completely volumetric objects, clouds look like their real life counterparts and when observing them from above look as real as if you're seeing them from the window of a 747.

Weapon fire is also particularly amazing. Gunfire features realistic looking tracers and deftly imitates the kinds of scenes from WWII gun camera footage. Firing at a ship for example and falling short creates amazing water fountains that spray over the decks. Hit the ship itself and small explosions erupt which makes for great eye candy.

Flak is another amazing graphical feature and is truly harrowing when exploding around you. The effect is brilliant; all the flak bursts with an amazing yellow/orange flash and then forms the blackened cloud we're all so familiar with. The ground however, although looking good

from the air isn't very good at low level flight. There's a clever trick that creates objects such as trees and houses when you're very close to the ground

but as they sit on washed out "out of range" textures it was far from perfect.

Sound

All the sound effects seem very realistic and there's an amazing amount of detail. Each aircraft feature its own sounds and the roar of a spitfire prop is certainly different to a P47. There are plenty of nice environmental touches such as if your canopy is breached (i.e. a bullet fired through it) you can hear the wind entering the hole. The volume of the wind changes with your current speed too. Another nice touch is the creaking of your wings and airframe when under a lot of pressure and there are plenty of sound effects that work well. EAX support is quite good but overall sound is not in the league of BF1942.

Conclusion

Despite receiving a lot of criticism for being "too dull" I've found CFS3 to be the kind of standard fare that one would expect from a "simulation". The dynamic mission structure works well and being able to choose between air and ground missions brings a nice element of freedom to the game. The addition of bombers makes for great fun and value for money as this is a separate career that plays out through the dynamic battlefield. Don't tell Microsoft but the bomber component could have easily been sold as an expansion. A worthy sim.

Jere Lawrence

RATING

FOR

Force Feedback effects
RPG style skills
Excellent graphics

AGAINST

Can get repetitive
Lags when loading
WWII sims are an "acquired taste"

OVERALL

You're going to need to be a hardcore virtual pilot. Add 14 points to this score if you're a sim or WWII buff.

78



HISTORICAL MISSIONS

To placate those that aren't interested in the overall Campaign (i.e. the core of the game) there are seventeen historically accurate stand-alone missions that show off almost all of the planes in the game except for the Mosquito. The missions vary from tank busting and with the addition of "what if" scenarios, Jet warfare WWII style. Kind of reminiscent of "The Philadelphia Experiment", a what-if scenario pits British Jets (Vampires) against Messerschmitts which is particularly entertaining.



Civilization III: Play The World

Developer: Firaxis ■ Publisher: Infogrames ■ Distributor: GameNation ■ Price: \$79.95 ■ Rating: G8+ ■ Available: Now

You don't have to be a loner anymore!

SYSTEM

NEED

P2-400
64MB RAM
8MB Videocard
400MB HDD

WANT

P3-733MHz
128MB RAM
16MB Videocard
400MB HDD

MULTIPLAYER

Well, duh!

ONLINE

store.civ3.com

Are you ready for some excitement? Now you can get Civ3 merchandise! Leather jackets! Coffee mugs! Field howitzers! It makes its own sauce! Great!



Tazman's glorious victory is mere moments away...

Hey! You there, with that shrine to Sid Meier and bloodshot sleep-deprived eyes. The time for silent prayer is now over as the latest gem in the mighty Civ series is here and it is time to conquer all and sundry once again.

Play The World is the Civ3 iteration that has been a long time coming. Even though at PCPP we slavishly 'evaluated' our original review copies of the much-lauded Civilization 3 for many hours, there was one small hole in the game which many of us lamented. We wanted to beat up on real people instead of the computer controlled nitwits who were all too quick to give us their technology even when we had huge invasion forces perched on their borders.

Flip the bird

In Play The World you can expect to be given the middle finger (metaphorically of course) if you dare ask for peaceful negotiations when it is obvious that you have amassed a larger invasion force than the dingaling with the funny moustache did in Poland in 1939. The beauty of playing flesh and blood opponents is instantly obvious as you have to live or die by your record in diplomatic negotiations and this aspect of the game really comes to life. You can't scam people like you can the computer either so your tactics have to be less transparent.

There is a plethora of play modes and apart from the more obvious Play By Email and turn-based modes there are a few innovations which really change the nature of the gameplay a great deal and should extend Civ3's long-term replay value considerably.

For a start there is a simultaneous play option which sees everyone setting their orders in motion and then after the timer counts down the game resolves the outcomes. This mode expedites things considerably, as there is little waiting for the next round to begin and you can always fiddle with your cities and check things out if you have finished your moves and are waiting for the other players to do so.

If this doesn't suit and you want to just keep on playing real time the 'turnless'



Another cunning Tazman move...

mode is a ripper, as you just keep playing and so does your opponent. This is click fest city and will possibly appeal to the C&C crowd who hunger for megafast mouse manipulation. Even though units can't speed over the terrain and must wait for a time bar to recharge there is a real urgency about playing in this mode as you always feel like your opponent is ahead of you or that you should be doing more. This mode is seriously intense and delivers a weird blend of real time and turn-based action.

King killer

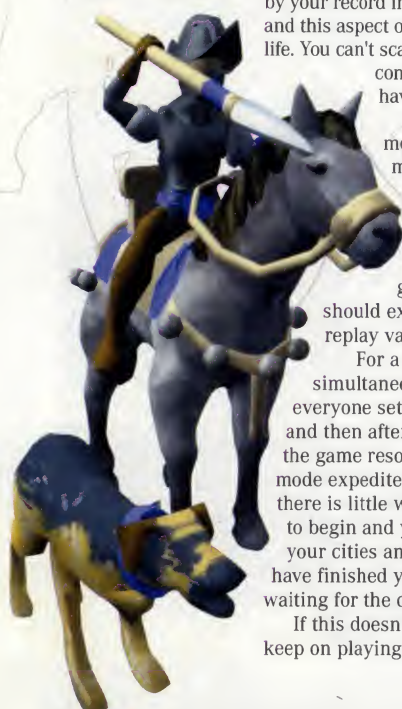
The new game options on offer also help prevent PTW from bogging down into overly long contests. There are simpler play modes which make for shorter games. These include regicide, where you win by killing the enemy's king unit, or the even more brutal elimination mode where you are a goner if you lose just one of your cities to the enemy. The game also

GET SMART

Espionage has been made far easier and workable with the creation of a new interface screen which displays all of the options and makes it easy to see exactly where you are when it comes to all things covert and sneaky. This is hugely welcome as the espionage aspect of the original game was a proper dog's breakfast. The interface changes for the most part are really welcome - indeed our love of the game has been significantly enhanced by one little button which now lets you immediately cycle through the cities which are in 'disorder' from the main map. This may not sound like much of an improvement, but anyone who has played Civ3 for a while is sure to be mightily impressed.

offers a more conventional wargame style of game with cities operating as victory locations. The goal here is to capturing enemy towns which gives you a point score that is ultimately used to calculate a winner.

Finally there is even a bizarre 'princess' mode which feels like the





Tazman is poised to strike!

NEW STRUCTURES

The ability to build outposts and radar towers also helps to make managing defence significantly easier, as you can set up forward bases at the edge of your empire which are cheap and can be used to spot enemy movement. The new airbases are also a great thing as they help you launch air strikes further afield, without having to create a crappy town on the edge of your empire just so you can land your bombers and fighters. Your humble worker is the man who makes these and even though he disappears and becomes a part of the structure when you build it we still think this is superb value nonetheless.

Singleplayer polish

Now apart from the much-welcomed multiplayer element a fair amount of polish has been added to the singleplayer outing as well. There are new units and buildings, a few graphical touches, and this expansion also seems to have beaten a lot of the bug issues which plagued the original Civ3 - cue huge sigh of relief from dial-up Internet users who had to suffer the large patches which were necessary to get the original disc working properly.

There are eight new civilisations, each with their own new unique unit for you to command as well as two new units that everyone gets to use. The two generic new units are logical extensions of the swordsman which can now be upgraded to a medieval infantry unit during the middle ages and a guerrilla soldier in modern times. These units don't really add much to the game, but at least you won't have wandering swordsmen on the map in the middle of the 1990s.



Fear Tazman's economic wrath!

strategy equivalent of capture the flag. You must grab the enemy princess and whisk her away to your stronghold for points. While doing this it is imperative that you defend your own fair maiden, and to add extra spice to the equation you cannot move your princess, only that of the enemy, so you have to set up a strong defensive perimeter and hope the enemy doesn't break through. It is also really funny watching your befuddled enemy chasing your raiding party across the map once you have grabbed their lovely lady - the closest a turn based strategy game has ever come to an episode of Benny Hill.

And at last the economic system can be tweaked to better suit faster games in multiplayer mode. Default production rates can be increased, eliminating waiting for your civ to reach critical mass by developing a new unit.

The multiplayer system does feature a GameSpy install, but the game also works quite well as a LAN offering.



All Hail Tazman! Emperor of the Known World!

Similarly the new civilisations have a few nice units but for our money the Uber civ is still - aptly - the German tribe, which gets tank-killing Panzers just when you tend to find yourself in the middle of some serious warfare.

There are three new buildings too. Two of these, the commercial dock and stock exchange just add a bit more financial muscle to the equation, but the third is much more important. The civil defence building is a real boon for those who find themselves under attack in the modern era of the game and the new building helps counter the redundancy of the walls later in the game which used to be annoying.

Firaxis have also done a little interface tweekery, putting all of the unit commands on the main menu, no need to know all of the hotkey commands now, and you can also stack groups of units making major troop movements less arduous. So in all, a fine upgrade that adds much to an already stellar game.

Steve Polak

RATING

FOR

Multiplayer well implemented
Interface tweaks
Bugs eradicated!

AGAINST

Few new units
No graphics update
Few new singleplayer additions

OVERALL

Not a great deal of innovation for singleplayer, but multiplayer Civ3 is a joy to behold

88

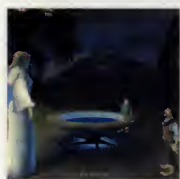
The Fellowship of the Ring

Developer: Black Label Games ■ Publisher: Surreal Software ■ Distributor: Vivendi Universal ■ Price: \$89.95 ■ Rating: PG ■ Available: Now

Amazingly, this has nothing to do with Pete Jackson's movies



Time to empty the chamber-pot



When Sam arrived, the queue for the loos was already long...



No jumping the line, dwarvish scum! Cross your stubby little legs!

J R.R. Tolkien was a true visionary, a man before his time. Not because he was responsible for one of the greatest works of fantasy literature. No, Mr Tolkien's true genius lies in having the foresight in making his brilliant work a trilogy. Three parts means three times the film versions, three times the merchandising tie-ins, three times the revenue and, of course, three times the computer game adaptations.

FOTR is based directly on the first instalment of Tolkien's novel and is not to be confused with EA's The Two Towers which is based on the film based on the novels. Confused now? However, the influence of the film on FOTR is readily apparent, the developers having obviously drawn the most inspiration from the glorious cinematic visual and design aspects.

Visual quality

Sadly, in the game version, apart from only a few environments such as Bag End, Hobbiton and Moria, they don't measure up. The sheer popularity of the franchise has forced the developer's hand in designing a game for multi-platform release. Alas, this means that from the control system to the difficulty level, the PC version is not significantly superior to its console counterparts and often graphically looks inferior to the Xbox version. All the characters are modelled well, but there is some variation in the quality of the animation.

Peter Jackson's cinematic efforts had many self-described purists claiming that the film represented a rape of Tolkien's works and proclaiming the director to be the equivalent of Sauron himself. Whilst FOTR more closely adheres to the novel, before purists breathe a collective sigh of relief, they should know that the game

still takes some necessary liberties. Newer fans will obviously be less miffed than those who make a habit of memorizing passages of text and dressing up in hobbit attire at annual conventions.

For those that fall in the middle to absurd end of the spectrum, there are many gripes ranging from the irritating (bogus names assigned to NPC hobbits) to the infuriating (completely ridiculous reworkings of both the hobbits' meeting with Strider/Aragorn in Bree and the breaking of the Fellowship). To compensate, the game does include several important sections that were excised from the film version. So yes, Tom Bombadil is featured, the hobbits do journey through the dangers of the Barrow-downs, and Arwen most definitely does not make an appearance at the by now infamous Ford of Bruinen scene. On

the flip side, there are omissions such as Bilbo's birthday party and the Fellowship's battle with Caradhras.

A Shortcut to... Boredom

Despite the inclusions, players are given surprisingly little control during some of the story's crucial scenes, which should have formed the game's backbone. Important sections such as the confrontation with the Nazgul at Weathertop, the Council of Elrond, and the Fellowship's respite in Lothlorien are taken away from the player. The first is played out in an uninspiring cutscene whilst the latter two are virtually glossed over.

Instead, players find themselves given the fascinating task of collecting water lilies or following tired find-and-fetch routines. Similar menial tasks such as trying to find the way through the maze of the Old Forest, or clearing a section for fellow party

ONE RING TO FOOL THEM ALL

Players who are desperate to get a taste of what it might be like to don the One Ring are in for a serious letdown. It's entirely possible to complete LOTR without ever having to resort to placing Sauron's creation on Frodo's finger. If players decide to give it a go, their perception of friends and foes remains unaltered, a shimmering fiery border around the screen being the only indication that the player is wearing the One. Prolonged use (which will never occur) gradually corrupts the player although completion of different objectives and reaching certain stages restores the player's purity level.



Suddenly, the walls disappeared



Gandalf in a moment of repose

When you're adapting one of the most universally well known and loved novels of all times, the stakes are considerably high



The rats in this town are a bit peaky...

members to journey safely through, forms the bulk of the tedious gameplay.

The title might refer to a Fellowship but unfortunately, players are only able to control three characters: Frodo, Aragorn, and Gandalf. Each is supposedly designed to represent FOTR's different gameplay elements: stealth, combat and magic, respectively. A sound idea but all of the elements are far too simplistic. To make matters worse Gandalf, who is probably the most fun character to play, is used the least.

The stealth meter that players are supposed to monitor whilst controlling Frodo proves to be next to useless. Enemies will often appear from nowhere and the night-time environments are too dark (even with the gamma settings on max) for the player to spot dangers. The fact that players can often just run past enemies, using Frodo's small size to evade arrow fire, renders the stealth sections virtually redundant.

Don't bother with your sword

For combat, each of the three characters comes equipped with a melee and ranged attack, controlled by the left and mouse right buttons respectively. Frodo and

Aragorn have only one upgrade to their melee weapon and one combo move. Gandalf possess five spells at his disposal but players will find they only need to use two. This all means that combat is repetitive and one-dimensional.

Fight sequences are an entirely lacklustre affair at the best of times with little skill beyond mindless clicking of the mouse buttons required. Even worse, defeating boss enemies is far too easy. Due to the poorly designed AI, players can simply target an obvious weakness and then exploit it to their heart's content. Gandalf's squaring off against the Balrog on the Bridge of Khazad-dum, which should have been one of the game's combat highlights, becomes a joke.

Can the storyline save us?

The storyline is advanced via a mix of moderately well presented cutscenes and uninspiring dialogue delivered by NPCs. Much of the dialogue is composed of lines from the novel (instantly recognisable to the afore mentioned rabid fan) although the developer's heavy hand is again evident here. Having to condense a voluminous text to make it digestible for the masses as well as younger players, some text passages have been re-written to devastatingly bland effect. They do not mesh at all with the original text making the game feel disjointed.

While the novel



Fight your way to relief with Sorbet re-folded steel

HAVE CAMERAS EVEN BEEN INVENTED?

Perhaps the worst thing about LOTR is shocking camera work. Characters are often obscured in cutscenes to the point where arms and legs will jut out from the screen's edge. During gameplay everything, from foliage to structures to pursuing enemies, will work together to block the player's view. Even switching to first person view doesn't help since the game has a tendency to switch back at totally inopportune moments. An unstable engine prone to crashing and a lifespan of less than 10 hours both add to the woe.

Gandalf's fight against the Balrog should have been the game's highlight, but was a joke.

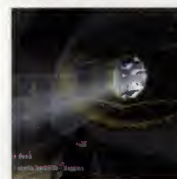
obviously had to be streamlined, where the dialogue really comes apart is in the voice-acting department. With the exception of Frodo, all the hobbits are given whining, unpleasant voices creating an impression on the player that they are slack-jawed and dim-witted, rather than being the bright and colourful personalities Tolkien intended them to be. The rest of the voices for the other characters are acceptable (the Elves sound distinctly wooden) although there is an annoying tendency towards over-acting.

Luckily, the game's music partially repairs the damage. Haunting tunes add loads of atmosphere in Moria whilst the soothing melodies of Lorien fit perfectly. Although the combat itself might be yawn-worthy, the change in tempo during fight sequences adds some liveliness.

Probably no one would care if game developers botched an adaptation of an obscure text. However, when you're dealing with one of the most universally well known and much loved novels of all time with a legion of devoted and unforgiving fans, the stakes are considerably higher.

LOTR makes a mess of things in a big way although more casual Tolkien fans may find enough fun on offer not to immediately notice the game's many flaws. Part of the problem lies in the inherent problems associated with developing code for a multi-platform release. But the shoddy AI, boring combat, confusing gameplay decisions by the developers, and dreadful camera issues are just unforgivable. Players will feel like casting this game into the fiery depths of Mount Doom.

Derek Lee



RATING

FOR
Official Licenced Game
Hobbiton nicely done
Good music

AGAINST
Weak Artificial Intelligence
Repetitive and boring
Dodgy camera

OVERALL

Limited appeal even for casual fans, diehards will definitely find their noses thrust well out of joint

71



Gents to the left, ladies to the right

Mechwarrior 4: Mercenaries

Developer: Microsoft ■ Publisher: Microsoft ■ Distributor: Microsoft ■ Price: \$79.95 ■ Rating: M15+ ■ Available: Now

And we thought Mech games were dead...

SYSTEM

NEED

P3-700
128MB RAM
16MB Videocard
1GB HDD

WANT

Athlon 1.2GHz
256MB RAM
GeForce3
1GB HDD

MULTIPLAYER

Yessir

ONLINE

mechwarriorcenter.com

Yep, it's one of those exhaustive fan sites with everything from fiction to wallpaper to wedding announcements

Mechwarrior 4: Mercenaries is the latest game in the Mechwarrior series, pioneered by Activision over 10 years ago (the same people who produced the ground breaking "Do-it-yourself-Lawyer"). After a breakdown in relations with FASA, Microsoft purchased the franchise and it has since evolved into a sophisticated single- and multiplayer universe.

In Mercenaries you are a mercenary (oddly enough) out to get rich and fight a bunch of battles on the way. You command a team (a "lance") and, if you're rich enough, a second lance. Your job is not only to fight but to lead and command your lances. That would be pretty standard fare (ever heard of Ghost Recon?) except that you fight while seated inside two-legged multi-million dollar fighting machines bristling with armour, guns and neat tricks. You don't have to worry about which pistol you're going to carry; you're much more concerned about whether or not you can fit a 10 tonne heavy laser onto your primary weapons mount.

It's good for newcomers, yet there's enough new material for an old warrior to enjoy for hours

Getting started

The game arrived on two SafeDisc CD-ROMs and I quickly found that the game will not play unless the second CD is in the same CD drive that was used during installation. If you like to pack your expensive originals away while playing and use CD image mounting programs such as Daemon Tools, you'll need to install from images.

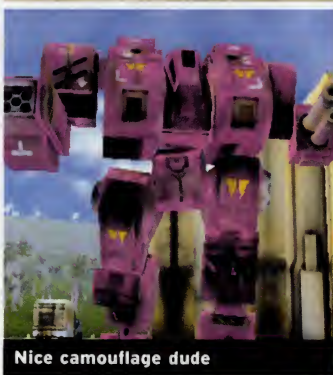
A full installation

took 1.2GB but with all those files on disc the game ran very smoothly with no jitter or delay in the video or audio. During auto configuration it assigned the highest complexity available to an Athlon 1700+/GeForce3 Ti200/512MB machine, so you don't need a complete monster to run the game.

If you have any problems at all make sure you find and read the four help files in the game directory. They will assist in solving lots of problems including video issues, multiplayer while using Internet

Connection Sharing, SafeDisc hassles and weird crashes. There's also a comprehensive guide to hosting your own game server.

Before I got going I had one final issue; my SideWinder Joystick doesn't support Z-axis turning or force feedback, but Mercenaries was convinced it did. This caused a few problems until I finally



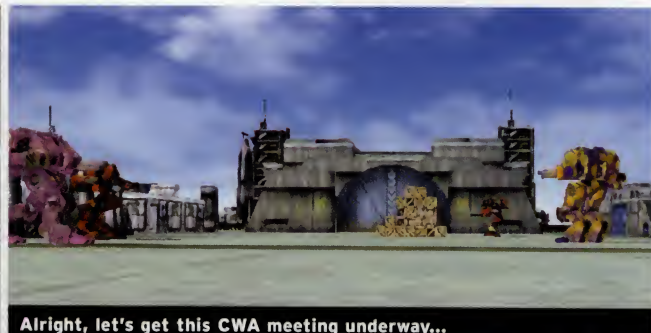
Nice camouflage dude



NFS: The way I like to play it!



I'll tread on the world!



Alright, let's get this CWA meeting underway...



I love a sunburnt country



checked out the control options screen.

The game

If you're new to Mechwarrior you'll want to spend a lot of time in the training camp. The training isn't comprehensive, but gives you the basics of moving, crushing and firing. Learning how

to use your jump jets or control lancemates is something you will need to read up on and practice. Practice is made easy by the wonderful "invulnerable" option, which allows you to play missions without crumbling into ash.

If you've been playing Mechwarrior for a while you might be wondering "what's new?" and the answer is "quite a lot", so if you've enjoyed past versions you'll really like this one. As you might expect, there are new Mechs and campaigns, as well as new weapons and tricks.

As you start the game you sign on with one of four sponsors, and then choose your degree of difficulty and the name of your Company. You can then go into training, instant action, multiplayer or a campaign. The campaign is the mainstay of the game.

You kick off with a fully-equipped lance and some cash. You choose a mission in

your planetary system and away you go. You can repeat missions for more money, but you'll face different enemy

vehicles and it will be more difficult. Repeat a mission too often and it might turn out to be a financial disaster. Instead of collecting payment and selling captured booty you'll be out of pocket for the costs of the insertion into the killing ground and running your lance.

If a planetary system has no further missions for your mercenary skills you can pay to travel through interplanetary space - that will cost money and time but the rewards may be worth it. There are more than 40 missions and 10 planets to work through, and it won't be easy. Multiplayer fans will find 19 new maps and two new game types which enforce cash limits, and Clan games on the Zone.

Better than the footy?

You can also travel to Solaris VII for something a bit different; you fight against other Mechs in huge game arenas, hoping to win money and favour from the ruling houses. Keeping one of them happy will annoy the other, but it may work to your advantage in the grand scheme of things. Several arenas are available and are good fun to play.

One aspect of Solaris that is really well done is the commentator. Just like a sports announcer he will make small talk in quiet moments and yet actually respond to what is happening in the arena. He smoothly moves, without any artificial gaps, from talking about previous bouts into discussing how you've just slammed an opponent into the wall.

Sound and fury

The music is rather good; I normally turn off a game's music after half an hour, but I was happy to leave it on throughout the game. The sounds effects were occasionally a little lacklustre in spite of the good amplifier and speakers being used. There are times when you're just certain that two guided missiles would make much

more noise than that!

The visual quality varied a bit; the open fields were rather barren and it was hard to tell the difference between a tree and a multi-missile launcher at a distance (something that doesn't happen in real life). In contrast the Mechs looked good and the visuals for weapon fire and explosions were just what the doctor ordered. The game engine isn't new, but that's really an opportunity rather than a problem. The developers can work to get the best out of it without raising the bar too far for most computers.

The between-mission cutscenes are generally short but to the point, and there is a lot of detail available regarding not only individual

NEW CHUMS

More money means more employees and that will allow you to equip a second lance. That means you'll have eight Mechs in the field which opens up new tactical opportunities. At about this stage you'll need that third arm you've always wanted to help push all the buttons! While they can work independently against several targets, the heat of the battle means that often you'll just use the extra Mechs as part of your own lance.

One tactic that worked well was to send off the members of one lance to repair at field workshops while keeping the others around to fight. That was particularly useful when guarding buildings or VIPs. If your lancemates don't make it you'll need to hire new employees and purchase new Mechs. If you don't have the money then you need to raise cash by completing a mission without them, and you can guess what's likely to happen if you try that...

Setting up your lancemates' Mechs takes time because you need to balance weapons, armour and extra capabilities such as anti-aircraft guns and jump jets. Getting it right is important but it will take time and practice to find out what works best for you.



The game engine isn't new, but that's really an opportunity rather than a problem

If you go down in the woods today...



Dropped right in it, as usual



Um... ouch?

missions but also general planetary conditions. This allows an extra level of depth to take into account once you've mastered the myriad of other factors to consider. Just getting used to the many controls available is a big task and you'll be keeping the control list handy for some time!

And so...

Mechwarrior is a worthy addition to the stable - it's good for newcomers and there's enough new material for a seasoned warrior to enjoy it for many hours. Do yourself a favour and buy a good graphics card and you'll be stomping on tanks in no time!

Andrew Calvin

RATING

FOR

Range of options
Varied opponents
Depth of gameplay
Arena commentator!

AGAINST

Dated visuals
Some bland cutscenes

OVERALL

Mechwarrior rides again! A gaming classic gets a worthy update

90

Mutant Storm

Developer: Pom Pom ■ Publisher: Pom Pom ■ Distributor: Online ■ Price: \$40.00 ■ Rating: N/A ■ Available: Now

My finger and the fire button are as one

SYSTEM

NEED

P2-350
32MB RAM
16MB Videocard
40MB HDD

WANT

P3-667
64MB RAM
GeForce2
40MB HDD

MULTIPLAYER

Yes

ONLINE

www.pompom.org.uk
Get your Mutant Storm here! It's only a click away. And while you're at it, get Space Tripper, it's better.



Purple Haze, all in my eyes...

We last featured the fine work of Pom Pom in PCPP#77, where their debut title Space Tripper took out the coveted #100 spot in our Top 100. Space Tripper took over my life and the life of then Deputy Editor John Dewhurst with its slick visuals, lean gameplay and a very true sense of history. Now, a year or so later, Pom Pom has released its second title. As Space Tripper was to Defender, so Mutant Storm is to Robotron. Two directional controls (one for movement, one for fire), a tight bordered room, and dozens of frenzied mutant superbots, thirsting for human flesh.

Philosophy of play

Like Space Tripper, Mutant Storm keeps it simple and classic. The player has four lives and three super bombs per life. The default controls see the cursor keys used for movement and the mouse used to point the weapon. The left mouse button is held down for autofire, and the right button releases a super bomb. And that's about all there is to it.

Important to note is that even though the heading of the player ship changes depending on where the mouse cursor is pointed, the direction remains fixed - the up cursor always moves the ship toward the top of the screen. This can be initially confusing for gamers brought up on a diet of FPS, and even Starcon veterans may lose themselves occasionally. Also, the mouse cursor, a black dot with a thin white border, is often difficult to make out among swarms of enemies, so maintaining a steady stream of fire can sometimes be



Excuse me while I kiss this guy

Two directional controls, a tight bordered room and dozens of frenzied mutant superbots, thirsting for human flesh.

more of a challenge than first expected. The mouse sensitivity also makes control difficult, but this, like all the controls, can be customised in the setup menu.

Heebie jeebies

Gameplay in Mutant Storm is much faster paced than Space Tripper. Each level has a typical time limit of 30 seconds, sometimes less. Enemies spawn in large numbers almost instantly, and then a second or third wave will spawn mere moments later. Levels are called rooms, and every five or so a new enemy type will be introduced.

Some enemies spawn and follow preset paths through the room, using the Space Tripper model of morphing into more dangerous foes the longer they are ignored. Others track the player unerringly, sometimes in such large swarms that survival is often a matter of luck as well as skill.

Problems

There are power-ups, including shields

and a homing missile, but these last less than five seconds so their usefulness is never something that can be relied upon. Also, Pom Pom has abandoned the Continue model present in Space Tripper for a Checkpoint system. Each time ten rooms are cleared a checkpoint is opened and subsequent games can be started from Room 10, 20, 30 etc. Unfortunately, this often means playing through up to six or seven of the same rooms over and over again in order to be able to beat the last couple of rooms before a checkpoint.

Finally, the price for Mutant Storm is nearly double that of Space Tripper, at US\$20 (\$40 Australian). But the game is much bigger - 89 levels compared to Space Tripper's 16. The game also lacks something compared to Space Tripper, but this may simply come down to the preference of the author for that sweet Tripper goodness.

Mutant Storm is definitely worth your time though, but don't be surprised if it doesn't dominate your life the same way Space Tripper did.

Anthony Fordham

ROBOTRON 2084

Mutant Storm obviously owes much to RoboTron 2084. This arcade classic was released in 1982 by Williams and would sit in the corner going beep until fed with 20c coins. Using a dual 8-way joystick control method, the player had to save 'the last human family' by shooting everything that moved.

The Robotron arcade machine is now a collector's item, and can probably be had on eBay for a stupid amount of cash. Owners tip: if you find that your new Robotron arcade machine keeps resetting on power up, this is of course because the +5v current drops too low on the CPU board. You can fix this by reflowing the solder, replacing the connector pins, or simply giving the whole kaboodle a good blasting with the compressed air.



It's coming right for us!

RATING

FOR

Future-retro graphics
Cracking pace
Variety of enemies

AGAINST

Controls fiddly
Checkpoint system
Lacks substance

OVERALL

Not as good as Space Tripper, but a refreshing blaster nonetheless

79

RalliSport Challenge

Developer: Dice ■ Publisher: Microsoft ■ Distributor: Microsoft ■ Price: \$89.95 ■ Rating: G ■ Available: Now

It brings the simple physics, but leaves the special effects behind



Think once...



Think twice...



Think: don't drive your car on the pavement

SYSTEM

NEED

P3-733MHz
128MB RAM
32MB Videocard
1.5GB HDD

WANT

P4-2GHz+
256MB RAM
GeForce4
1.5GB HDD

MULTIPLAYER

Yes

ONLINE

www.rallisport.com
This is a definitive source of WRC info, and includes sweet pics of hot guys like Colin McRae and all those Scandinavians

The flow of Xbox titles being ported to the PC is gradually increasing, with Microsoft's RalliSport Challenge being the latest convert. For the uninitiated gamer, the differences between PC games and Xbox (or any other console, for that matter) games may seem negligible; little do they realise that a PC - with its wildly variable system specifications and slew of optional peripherals - is a very different beast. So does this latest crossover have what it takes to make a successful PC game?

Looking good, baby!

The graphics are certainly not going to let the game down. If the Xbox has any edge over the PC at all, it would definitely be in the visuals department. Despite this, Rallisport Challenge brings most of the Xbox glam to your home computer, but with the extra bonuses of variable resolutions and

graphics options. However, as we feared in last month's preview, support for pixel and vertex shaders has been left out, so many of the reflections, especially on road surfaces, seen on the Xbox don't appear here.

Each of the cars are recreated well, with animated drivers, dynamic lighting and shadows and a reasonable - albeit very forgiving - damage model. The

environmental effects are especially good, and the excellent rain effects, which are by far the most visually realistic in any game to date, can exemplify this. The surroundings react extremely realistically as you hurtle through the bush. Trees sway in the wind, grass is whipped into the air as you pass, and the scrub is brushed aside as the cars charge through it.

There are an impressive number of play options available, such as Hill Climb, Ice Race, Rally, and Rallycross, all of which can be played in multiplayer, time trial or single race mode (which features four cars racing at the same time). Unfortunately, the menu system's console origins are very obvious, and it's a little tedious navigating through them with a mouse or keyboard.

Cars & Tracks

Microsoft's RalliSport offers an enormous selection of cars along with a nice variety of tracks. All the accustomed cars are included, including the Subaru WRX, Mitsubishi Lancer and Toyota Corolla. This is also the first rally game to include the all-new

(and very un-tough looking) Volkswagen Beetle. Most of these cars are also available in a special Hill Climb or RC versions.

Tracks vary from rally stages to closed circuits, and the game includes a variety of weather effects (such as sun glare, rain and snow). The ice and snow stages are maybe too unrealistically easy to drive, but at least they offer some serious four-wheel-drifting excitement!

Keyboard recommended!?

Once I had the old keyboard under control, Rallisport offers a fast, furious and fun driving experience, with handbrake turns and fishtailing power slides in abundance. The sound effects are okay, but they don't manage to stand out and thus pale in comparison to the smoothly flowing graphics.

In the end, Microsoft's Xbox port offers a glitzy, shallow yet satisfying arcade racer for the PC. The driving physics lack sophistication and may become boring for real rev-heads, but the stunning graphics

will probably be enough to keep most un-phased weekend rally drivers content.

Victor Webster

COIN-OP PHYSICS ARE MOST WELCOME

The Rallisport physics engine is pure grab & go arcade racing, and this is highlighted by the very unrealistic Reset button (I'll bet Colin McRae wishes he had one of those!). The driving model is also obviously designed with a console gamepad in mind - only once I disconnected my force feedback wheel and started driving with the keyboard was I able to race competitively! (Didn't miss out on much, as the force feedback effects are pretty lame anyway). A driving game that is easier to play with buttons than an actual wheel is very rare, and this is true testament to the game's console design and arcade physics engine.



Haunted by ineffectual camera controls



Mind if I park on your face?



YAAAAAARGH!

RATING

FOR

Xbox graphics
Easy to master
Heaps of cars

AGAINST

Gets boring
Gamepad controls
Unrealistic

OVERALL

Sweet bush-bashing visuals, although serious sim freaks should steer clear

69

Xtreme Air Racing

Developer: Victory Simulations ■ Publisher: Just Flight ■ Distributor: QV Software ■ Price: \$49.95 ■ Rating: G8+ ■ Available: Now

It's air racing, but is it truly Xtreme?

SYSTEM

NEED

P3-700
128MB RAM
16MB Videocard
650MB HDD

WANT

1.2GHz CPU
256MB RAM
64MB GeForce3
650MB HDD

MULTIPLAYER

Yes

ONLINE

www.pylon1.com
An exhaustively researched archive of everything you have ever wanted or needed to know about air racing. Super Yaks! Corsairs! These people are definitely insane.

Wimps Need Not Apply - You may have seen this sticker on the back of a self-proclaimed legend's cars and thought their ego was way too far up their exhaust pipe to be warranted, yet this can't be said for the real men and women of the Reno Air Racing circuit. Considered to be one of the most dangerous sports in existence and certainly the fastest motor sport around, UK simulation publisher, Just Flight, now gives you the opportunity to try it yourself with Xtreme Air Racing (XAR).

XAR allows you to fly in a variety of aircraft (25 in fact, mostly WWII ex-fighter planes) around a number of real-world and fictitious courses against any number of competitive computer controlled planes in single player mode, or against up to 8 of your friends/enemies in multiplayer mode. As with many racing simulations, you can choose between Single Race and Championship Season modes for added interest. During a championship, you have the option to improve your aircraft with new engines and parts to increase performance, speed and agility of your racing machine.

Ignore the over-excited marketing blurb on the box, even in an empty playing field this sim comes in a distant 3rd

Kept too simple

Immersion in the game is good to begin with but quickly fades as gameplay becomes repetitive once all the 'surprises' have been uncovered. Terrain modelling and terrain texturing is fairly basic and fails to keep the eyes interested. The running commentary engine does aid in generating a race-like environment to the simulation, but it also tends to get tiresome. The addition of a combat mode allows you to shoot down other race entrants, which is useful, particularly if your flying skills are not up to scratch. Hey, if you can't beat them shoot them right?

Three levels of difficulty are available to suit all skill levels and audio tips are provided by flying ace Bob Hoover, who has officially endorsed the product. Bob will



NEED A FACELIFT?

Expanding XAR can be achieved by either creating your own race courses via a primitive text-based file customization structure or creating your very own announcer scripts if the default announcer starts to wear thin (and he will). This is achieved by recording your own replacement .wav files and linking them into the simulation via a text file containing the necessary variables the program can read from. Users also have the option of adding custom music to the background while racing. Unfortunately the sim only accepts WAV files, so you can forget about adding in your favourite MP3s. The manual claims running MP3s consumes too much CPU load, but hey, what about those lucky souls with 2GHz+ mega machines that can run anything? A few Metallica or U2 tunes pumping while racing would have gone down well, but to convert these to WAV files first was too time consuming and hard drive wasting to justify the whim.

have you 'flying the pylons' efficiently before you can reach for your copy of GP4 and you should easily find yourself on top of the podium in Bronze and Silver modes in no time. Gold level will take a little more practice and skill.

Flew flaws?

Unfortunately, this game will fall short of holding the attention of any serious simulation or aviation fan for any reasonable length of time, due primarily to the basic aircraft flight models in existence. Any serious flight simmer will quickly find flaws in the aircraft handling characteristics. You can pull huge Gs inverted around tight corners and easily recover without significant loss of speed or altitude. In a real aircraft, of course, you would more than likely black out, if your aircraft hadn't snapped in two or fallen into an uncontrollable spin beforehand of course.

XAR is the first serious sim to attempt to replicate air racing, so it can't be readily compared to any other before it, however, it still has a long way to go to accurately portray the real world experience. Ignore the over-excited marketing blurb on the box. In the race for air-racing superiority, even with an empty field this sim comes in a distant 3rd in production detail and playability.

Dean Bielanowski

RATING

FOR

Good Clean Fun (TM)
Custom options
Combat mode livens up racing

AGAINST

Basic flight models
Fails to keep interest
Lack of detail and playability

OVERALL

Singleplayer is kind of dull, but picks up the pace in multiplayer. Seriously crazy racing!

70



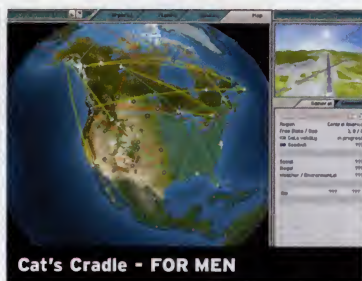
Airlines 2

Developer: Interactive Vision ■ Publisher: Take 2 ■ Distributor: EA ■ Price: \$49.95 ■ Rating: G ■ Available: Now

Where it is asked: can one person have just too much fun?



A graphic! Get down!



Cat's Cradle - FOR MEN

Airlines 2 is a management game like Rollercoaster Tycoon in the same way that a surgical scalpel is like a pair of plastic safety scissors; they are both cutting implements, but the similarity ends there. Most "tycoon" games are colourful and noisy with engaging graphics to entertain you while you run a business. Airlines 2 isn't like that at all. It is, in fact, a "serious" management simulation. It's complex and requires considerable mental effort.

You start the game with some money and landing rights. It's your job to choose where in the world you want to start out, then buy some aeroplanes and see if you can build up an airline. It's not easy, it's certainly not fast, and it's difficult to decide if it's even fun. That decision is a tough one, because it might appeal to someone in the same way that writing your own text editor in C++ does (and there are quite a few out there).

What do you get?

The game arrived on one CD together with a 27 page manual. Installation was fast and smooth, bearing in mind that it was running on an Athlon 1700+ with a GeForce3 Ti200 card and 512MB of memory. The CD also contained a few game demos, but you probably already

have them from PCPP cover discs. There is no in-game tutorial, so you need to rely on an incredibly brief tutorial in the manual. The manual assumes a fairly intelligent and perhaps "mature" audience, although that seems to fit with the overall game play.

What do you do?

The game starts with an impressive movie which seems to outline the history of transport, leading up to your arrival on the scene in 1960. However, like most splash-screen style movies you're not likely to watch it more than once. You are then presented with some fairly simple screens in which you set up your company before getting down to work.

In-game cinematics are limited to five small generic flyovers of airports and small rotating samples of the planes you've bought or are about to buy. That's it for animation, unless you count the 3-D earth that you can grab and rotate while setting up routes. You see, this game is not about watching aeroplanes fly around - buy Industry Giant 2 for that - it's about

managing the finances of your airline.

The game progresses fairly slowly. As time goes by certain aircraft are no longer sold, and new models come onto the market. There are 110 aircraft each with a rotating sample. They seem to be fairly accurate, although the Fokker F-27 100 looks like it has rear mounted jet engines, whereas I know for a fact it had wing-mounted turboprops.

Each plane has characteristics such as range, carrying capacity of goods and/or passengers and cruising speed. These things together with purchase price help determine which plane is most suitable for a particular route.

Setting up a route requires some knowledge of each destination and aeroplane characteristics. This requires research, which takes time and money. If you don't actually build a route the research will fade and need to be re-done later. Once you have a route ready to go you'll need a lot of money for both the plane and the fees to purchase the route.

As you progress you can fine tune the goods carried on routes to increase their profitability. From time to time planes will also crash, damaging your goodwill (which is critical to expansion). There are lots of things to tweak and tune constantly, and failure to pay attention will lead to failure overall. This isn't a game you can leave running while you have a shower.

And the point is?

Like most simulations you usually just run it to see what happens, and if you're lucky you may even meet victory conditions for a scenario. There are four, along the lines of most comprehensive, most valuable and so on. Choosing one of these for a game doesn't affect any gameplay at all - it just determines how the game will end. You can choose the number of computer opponents (from 1 to 7) and they always beat the pants off me.

Is it good? If you're not a visual type, and you like tweaking things to find just the right formula, then you'll probably really like this game. However, I'm not too sure how many of you there are out there (which is just as well, since there's no multi-player option).

Andrew Calvin

SYSTEM

NEED

P2-500
64MB RAM
32MB Videocard
400MB HDD

WANT

1.2GHz CPU
256MB RAM
32MB Videocard
400MB HDD

MULTIPLAYER

Yes

ONLINE

www.airsafe.com
Find out if your next air carrier is going to get you to your destination with comfort, ease and peace of mind, or alternatively spiral you into the ground engulfed in a giant ball of flame...

RATING

FOR

Depth

Long gameplay

Attention to detail

AGAINST

Constant clicking of message box

Critical events can be missed

Gameplay extremely repetitive

OVERALL

Only suitable for a particular kind of gamer, but well executed and nicely finished off

65

BUT WAIT, THERE'S MORE!

You'll often need to borrow from the bank and decide at what rate you'll pay it back. Early repayments mean less total interest, so if your cash flow supports it you can pay it back early. If you have excess cash you can even make a deposit, but it's a fixed deposit and you'll pay fees for early withdrawal (quite realistic, really). You can also play the stock market, buying shares in airlines or companies whose goods you carry. You can then try to build routes that favour those companies (a practice the ACCC would frown on).

Data						Cost
Name	Type	Value	%	Cost	Passengers	Speed
Boeing 747-400	Airplane	2,500,000	100.00%	12/13	780/80	490.000
Boeing 777-300ER	Airplane	8,200,000	100.00%	24/24	120/144	750.000
Boeing 737 MAX 8	Airplane	9,100,000	100.00%	14/14	140/140	1,200.000
Boeing 787-9	Airplane	9,900,000	100.00%	24/24	180/180	1,070.000
Boeing 747-8	Airplane	10,400,000	100.00%	27/27	130/130	1,050.000
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Boeing 737 MAX 8	Airplane	9,100,000	100.00%	14/14	140/140	

MOD LIFE

HALF-LIFE Heart of Evil

For: Half Life ■ Version: 1.02 ■ Size: 92MB ■ URL: www.planethalflife.com/heartofevil ■ Rating: 4/5



Schoolies Week, Hayman Island



I love Hayman Island



Hayman Island tennis courts: deadly



Now how will we get to Hayman Island?

SAN ANGELES

For: GTA3 ■ URL: www.gta3-sa.com ■ Rating: 3/5

No prizes for guessing how the mod team came up with the name for this reworked version of Liberty City set on an island. The mod is still in pre-release and much work is still to be done, although the quality of the new weapons and vehicles shows that things are coming along nicely. The final version of the city will include an army base, ensuring even more variety when it comes to gameplay. Players will also be allowed to take the action indoors (such as holding up banks) and, on the reverse side of the coin, perform "good" deeds such as deliver pizzas and the mail!



Many students have wasted many hours trying to comprehend enough of Joseph Conrad's literary masterpiece, *Heart of Darkness*, in order to write an English essay about it. If watching the movie adaptation *Apocalypse Now* didn't lend any insights, then maybe playing this mod will. Just be prepared to have an answer when the teacher asks why you've made mention of zombies in your essay.

Yes, *Heart of Evil* is only loosely based on the novel and the movie which is why the aforementioned zombies rear their ugly undead heads. The zombie hordes, along with the Viet Cong and hostile US troops, are out to prevent the player from completing the main objective in this singleplayer mod: the assassination of the rogue Colonel Kurtz.

The action is fairly lacklustre in the first two episodes but really gets going after that when the player travels to a seemingly abandoned army base. From then on, the game plays a weird Resident Evil-Vietnam War hybrid which may deter the historical realism nuts out there. One thing that can't be denied is that there are gibs aplenty in the ensuing zombie-killing fest.

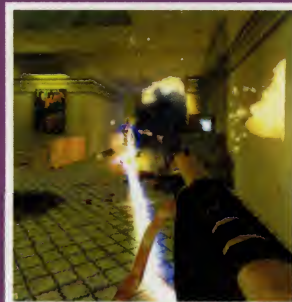
A main criticism of earlier versions was that the mod retained Half-Life's standard weapon set, which not surprisingly felt out of place in the 1960s setting. Thankfully, this has been rectified in the latest release and there is some fantastic new hardware on offer.

Otherwise, HOE boasts some excellent texture and modelling

RED JUSTICE

■ URL: digitalpaintball.net
For: Half-Life ■ Rating: 4/5

Confronted by a race of super-alien, unimaginatively named "The Greys", bent on conquest, Earth turns to a team of warrior mercenaries called "The Blood League" for help. Whilst the storyline is almost as tacky as the one in *Independence Day*, there's some solid class-based multiplayer gameplay going on behind the scenes. The Greys are technologically superior with the weapons to prove it meaning that when playing as the human forces, there is plenty of intensity from a great backs-against-the-wall type mentality. Whilst this is still in beta release, a full version should include even more well designed maps.



work and there are few bugs which means everything runs smoothly. Unfortunately, some of the puzzle elements aren't well thought out and prove frustrating.

This is a mod for players who enjoy the Vietnam War setting but are on the lookout for something a bit different. Be warned though that the overall feel of the mod may just be too weird for some. Nevertheless, a couple of hours with HOE and that English essay might seem less daunting. Just remember to leave the zombies out. ■





with Derek Lee

RTCW The Wild West

For: RTCW ■ Version: 1.13 ■ Size: 85 MB ■ URL: www.the-wildwest.co.uk ■ Rating: 4/5



Eh Gringo, reach for your taco! Slowly!



Consider it payback for the Alamo, High-Merican scum!

Western Quake is looking right down the barrel of a high noon showdown with this new mod for RTCW. The Wild West is a multiplayer class-based mod between two opposing sides. Instead of the Allies and Axis, this mod features Cowboys and (no, not Indians) Mexican Bandits. Although the team names are different, the classes are based on the standard RTCW ones. A bit more creativity might have added some extra variety.

The mod features three huge maps set in an abandoned mine, a stereotypical Wild West frontier town, and a sprawling Spanish estate. All the maps are equally well designed and should cater for plenty of classic Western shootouts in saloons and across rooftops. The aim of the mod team was to slow down the pace of the action, and

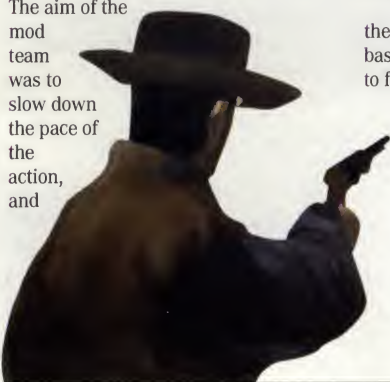
accordingly, there is plenty of cover for players to exploit and duel it out.

The weapons on offer are a nice mix of six shooters, muskets, and the awesome Gatling gun. The latest version tones down the power of the explosives and the mod feels more balanced as a result. The next area that perhaps could use some attention is the weapon effects that tend to sound rather hollow.

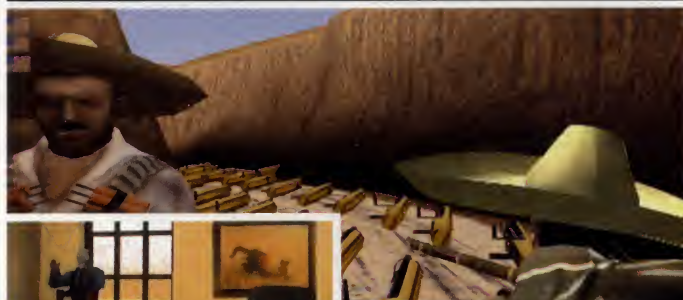
Fortunately, the same won't be said for the voice samples which are suitably cheesy and reminiscent of the old Spaghetti westerns. Player and weapon models won't win points in the realism department but they fit in nicely with the overall stylised graphical work. The result is a mod with a unique feel and plenty of atmosphere.

The mod is surprisingly stable but the real problem, as with many team-based multiplayer mods, will be trying to find suitable servers. Players

should persevere because even without all its good points, this mod deserves a look for the simple reason that it departs from the WW2 and Vietnam War mods. Players tired of battling Nazis should swap their Luger for a Colt and head for the Wild West. ■



Shoot him in the grits!



Clint, be reasonable now!

The Ladder

For: Jedi Outcast ■ URL: www.fileplanet.com ■ Rating: 4/5

This single level mod has no plot and no mission objectives but is a heap of fun nonetheless. The premise is simple. Players start the level with full lightsaber and force powers and must defeat one Reborn Sith, then two, and so on until there are 54 notches against your saber. No time for rest because then there's the Shadow Troopers and two bosses to withstand in an ultimate test of survival. With excellent music from The Prodigy to match the frenzied action, this is what a Star Wars movie would be like if John Woo ever got a shot at directing.





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5.1 Decoder



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S.A	Hi Tech Distribution	(08) 8130 1000
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ACT	Cougar Computers	(02) 6242 2703
W.A	Zeus	(08) 9382 2866
NSW	Oxygen	(02) 9649 4477

www.alteclansing.com

TECH IN REVIEW

ASHER AND JERE AND \$250,000 WORTH OF SWEET, SWEET KIT

84 Matrix PC

We built it so you could win it

Case modding is a new aspect to tech and computing that from a hardcore gaming point of view seemed really rather superfluous. But unlike a proverbial leopard that can't change its spots I must confess that after witnessing the aesthetic appeal that a Perspex window and a few cold cathode lamps can bring to the relative boredom of a PC case it's actually a worthwhile investment.

The best news though is that modding isn't really that hard at all. Yes you have to use a drill and take an element of care but it's certainly not harder than putting together a scale model or installing a door handle. As this is the month that is all things Matrix, what better way to demonstrate the effectiveness and simplicity of building and modding a PC than to take you step by step through the creation of the Matrix PC. Now although we used some mighty fine (and expensive) parts to build our digital darling keep in mind that you can still follow the guide even if building a lower spec system. At least that's one very positive aspect of case modding, you don't need to upgrade to a newer, faster light every 6 months.

It's also been a fantastic month for exciting items. Firstly there's the Audigy 2 which certainly represents the highest of the high end sound cards available to the consumer. Being fully THX approved it was no surprise that the Audigy 2 was going to sound great but we weren't at all prepared for its amazing ability to output crystal clear 24-bit 96Khz DVD Audio in glorious 6.1 surround. Mr Sim Wong Hoo changed the world of PC gaming with the original Sound Blaster and now he is transforming our systems into high end, surround capable, drool worthy sonic stunners, bless him.

Yet the Audigy 2 only represents a small part of this month's feature packed line up of new technology. Intel's latest chip, the Pentium 4 3.06Ghz with Hyper-Threading thrashed all our highest benchmarks and changes the nature of processing. Asher investigates one of the very first nForce 2 boards to closely examine nVidia's implementation of dual channel DDR and finally, George Soropos with his abundant knowledge of rev-head centric games puts six Steering wheels through their paces and authoritatively chooses a winner.

Expect amazing things this year. Technology is progressing faster than it ever has and as memory, bus and processor speeds continue to increase, performance grows exponentially. Now, we just have to convince those pesky developers to start coding for the higher end of town and stop developing for the LCD, that's lowest common denominator to you and me.

Jere Lawrence
Deputy Editor
jere@next.com.au



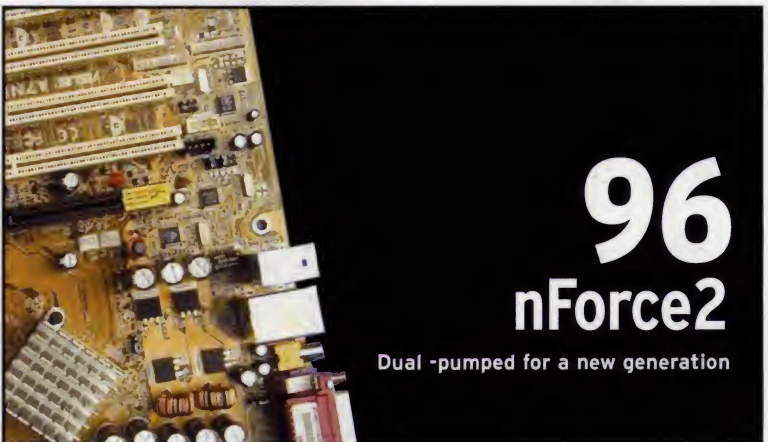
92 3GB P4

Fastest CPU yet?



94 Audigy 2

CD? It's so last generation daahling



96 nForce2

Dual -pumped for a new generation



97 Corsair XMS3500

Elephants have nothing on this stuff

THE MATRIX PC

HOW TO BUILD AND MOD YOUR OWN P4 SYSTEM



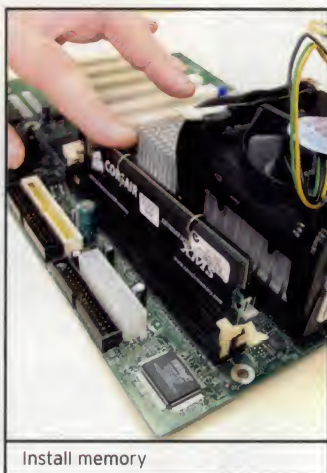
Caption



Ensure chip keyed to SW position



Fasten HSF levers diametrically



Install memory



Plug in HSF to power socket

There are three common requests that are made to PCPP and its tech department. The first is for another tech feature on how to build your own PC; the second request is for a feature on case modding which was greatly accentuated by the reader survey - a majority of you confessed an interest in case modding if there were tutorials that explained how. The final request, ya greedy lot, is for the opportunity to win a beast worthy uber-PC. Consider it done. Subscriber now for your chance to win and read this guide to learn how to build and mod a machine yourself. Damn we're a caring, sharing bunch here.

Ready a work area

The very first thing that should be done before building your own system is to read the "static electricity" box-out and then establish a work area. A desk or table is preferable so make an area where you can work on the machine comfortably with plenty of room for your components. If possible, use a gas-lift chair and raise it as high as possible so that you can see into the case without straining your neck. It's really not good form to work on the floor and on a carpeted area you run the risk of damaging your components with static electricity.

Preparing a motherboard

The first step in assembling a PC is to install the CPU and memory on the motherboard before putting it into the case. Depending on your processor the installation of the CPU will differ.

Pentium 4

The Matrix PC used a Pentium 4B so we'll start there. Start by ensuring that the handle for the chip socket is unlocked and standing vertically, i.e. straight up. Examine the P4 chip and note an arrowhead adjacent a "cut" corner. Now, manipulate the motherboard so that the socket that the chip goes in is facing in a south westerly direction, i.e. the bottom left. Align the arrowhead on the CPU so that it also is at a south westerly direction and appears to be pointing at the handle. This part really is simple as the chip is "keyed" to only go in one way and will literally just drop in. If the chip doesn't drop in easily, it's probably around the wrong way.

With the chip inserted push the handle down and back into its locked position. Be gentle but firm and don't be frightened by a small element of resistance, particularly as the handle gets nearer the

bottom. Some additional pressure will be required to lock the handle in place, when you hear a click and when attempting to lift the handle causes resistance, it's locked.

Heat sync

Installing the heat-sync fan (HSF) is easy on a P4 as there's no keying, it's just a matter of placing the HSF into the socket surrounding the CPU. The most efficient way is to angle the HSF so that the fan connector exits in the direction of the fan socket on the motherboard. On top of the HSF is a square plastic clip. There are four raised slots the clips click into so line it up and press down until each clip locks into place in the socket. Once clipped in, note the two handles on the top, these lock everything down securely. Grab each handle and at the same time move them in opposite directions to lock them down. Note the plug coming from the fan and plug this into the appropriate 3-pin plug labelled "CPU FAN". To ensure that everything is locked securely in place, grab the HSF and attempt to lift the motherboard into the air. If nothing moves and you can successfully lift the motherboard then it's all secure.

Inserting an AMD chip

Placing an AMD CPU onto a motherboard is a different process to the P4B. The chip is also keyed so make sure the arrow-head is aligned with the handle, again the same principle applies - if the chip drops in easily it's aligned correctly. With your heat sync, you should have received some thermal cooling grease (a sachet filled with a white greasy substance). Generously apply the grease to the raised area of the chip (i.e. the processor itself), this is easy to recognise as its 1mm taller than the brown base it sits on and will have "AMD Athlon / (chip name)" printed on it.

Heat Sync

This is the part you have to be THE MOST careful with. AMD compatible heat-sync's fans (HSF) will only go on ONE WAY. Turn the HSF over and note that there is a depression in the bottom. This lines up with the southern side of the socket (i.e. the bottom of the handle). It is vitally important to line this up or you WILL destroy (correct term is "crunch") your CPU. Attaching the HSF to the socket is the hardest part so take some calming breaths and be patient. Although some HSF's have handles, the majority require the use of a FLAT HEADED screw driver. There are two clips one north and one south. Bring the HSF down on an angle and hook the north end of the clip onto the socket. Next, even the HSF and with a FLAT HEADED screwdriver, insert it into the slit on the south side. Now, carefully press down on the screwdriver (the slit should hold it in place) and deftly angle the clip inwards so that the three plastic bumps go through the metal clip. It's not easy, there's a lot of resistance as the HSF is a very tight fit to the CPU. There's no shame in a few failed attempts, just make sure the screwdriver never slips out (kiss your motherboard goodbye) or you push down too hard and damage the CPU.



Seat Power Supply in case



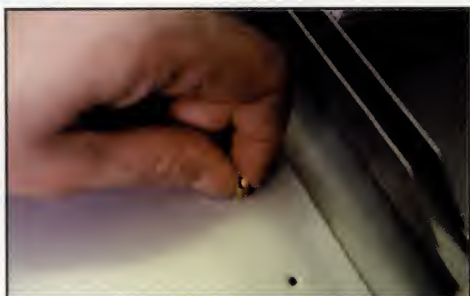
Screw Power Supply to case



Note screws line up when installed right side up



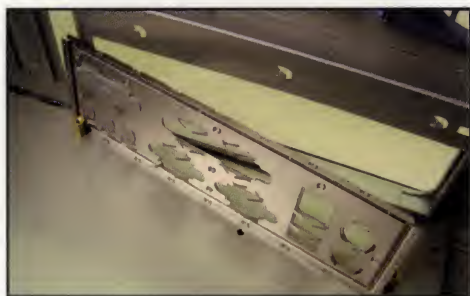
Install copper risers in bottom of case



Ensure risers are aligned with motherboard holes



Make sure you use the right back plate for your mobo



Press in back-plate



Sit motherboard on top of risers

ANGLES ARE BAD!!

The numerous pictures on these pages that demonstrate how to build a PC have been taken with "artistic" emphasis over functionality. When inserting cables (particularly IDE and floppy cables), memory or any other part, make sure that you do not attempt to insert anything on an angle (as the pictures seem to be demonstrating). Instead, ensure that every plug is lined up correctly with each socket and apply firm even pressure to connect it. Once again, angles are bad, unless it's in a photo - then it's artistic.

Memory

Next, install the memory. In the case of the Matrix PC DDR memory was used which like most parts of a modern PC is also conveniently keyed. Check the socket on the motherboard and line up the plastic clip in the middle with a small semi-circular cut in the DDR module. Make sure the two plastic side clips

are in the open position and place the memory over the socket and "gently but firmly" apply even pressure until the chip clicks in place. Visually inspect it to make sure that it's all locked in and attempt to lift the motherboard up by the memory as a final test. Just check for resistance though, don't actually lift it in the air as the weight of the HSF could bend the board and cause a fun-stopping micro-fissure.

Copper spaces.

If you haven't already, remove the side panels from the case then lay it on its side so that the bottom plate the motherboard screws into is closest to the table top, i.e. at the bottom. Grab some copper spaces (these have a threaded screw end with a large hexagonal internally threaded head) and line up the motherboard with the threaded holes in the bottom of the case. Once ready, screw them in by hand and to tighten them use a hex or socket driver. Depending on the motherboard, the back ATX plate may or may not be compatible. If it is, skip to motherboard installation, otherwise a back plate will have shipped with your motherboard. To remove the current back plate, use a screwdriver and apply pressure from the

outside of the case and push inwards. Some plates come out easily; others require a lot of force. Be very careful, the shots you see with my finger covered in 2 band-aids was because I applied too much force and when the plate gave way my finger launched into an edge and got seriously sliced - there was a lot of blood. To insert the new plate, from the inside of the case push it into the rectangular slot until it clicks into place.

Motherboard Installation

Ground yourself (see static electricity box-out) and pick up the motherboard. A good method to try is to hold the plastic PCI slots and HSF or any other non conductive materials to avoid static damage. Line the motherboard up with the spacers and the back plate then screw in the small screws that fit in the copper spacer's. Best method is to screw the board in using a diametrically opposite method, i.e. First screw in the northwest position, second screw southeast, third screw northeast, etc.

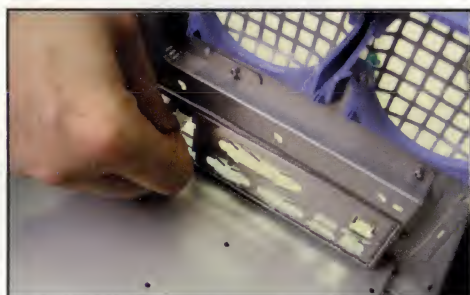
Power Supply

A lot of cases come with the power supply (PSU) already installed but if yours doesn't, installation is simple. Place the PSU towards the top of the case where the PSU bay is. Line it up with the four screw holes and then from the outside screw it in. As we're in Australia make sure power input is set to 230V via the small red switch on the back.

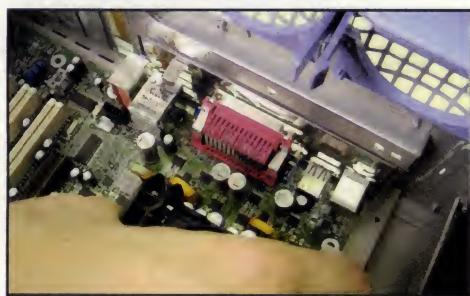
Once the power supply is installed it's time to connect power to the board. Note a 20 pin connector that comes from the PSU, there is only one place on the motherboard that this could go so locate it and plug it in. The socket is keyed so do not try and force it in, the right way will offer the least resistance and click in comfortably. If you're installing a P4 you also need to plug in the additional 4 pin power plug. This too is keyed so will connect effortlessly when being connected the right way.

Hard and Floppy Drives (HDD & FDD)

Start by making sure your HDD is set to master or cable select. This is achieved using jumpers of which the settings will be clearly labelled on the HDD as well as in an accompanying printed manual. Depending on your case there should be a bay suitable for 3.5"



ATX back plate secured



Line up motherboard with back plate



Screw in motherboard



Secure screws diametrically opposite

Static Electricity

In school the majority of us probably found static electricity quite fun. Rub your feet on the carpet then lift them and zap the closest victim. In the world of electronics though static electricity can turn your expensive investment into junk. Before handling any components always try and touch a grounded piece of metal to discharge any static electricity that has built up in your body. Failure to do so could cause you to inadvertently damage a component.

devices that can be removed (either through the removal of screws or with a handy latch). Take the bay out and line up the HDD with the holes in the bay. In the interests of caution make sure the screws you're using aren't too long by holding one against the bottom side of the drive and verify that when screwed in tight there is at least 1 - 2 mm between the end of the screw and the HDD's PCB. Place the screws in diametrically opposite and put the bay back in. Some cases will have an optional mount for a fan, this is a good idea if you plan on installing two HDDs close to each other as high temperatures can cause failures. Any case modern enough for a fan in the drive bay will have clips so is a "breeze" to install.

The floppy drive is equally simple. Start by removing a 3.5" bay front face plate by either using a flat-headed screwdriver to gently pry the face plate out or push it out from the inside. There may be an additional metal plate behind the plastic face-plate and if so just use a screwdriver and push it so that it sits flat, then use your fingers to bend it back and forth until it comes out. Careful, these plates often have sharp edges.

Depending on the case, the Floppy will either have its own drive bay or be shared with the HDD bay. Screw the Floppy drive into the slot that aligns with the removed 3.5" face plate and for best "first time" results, insert the FDD from the front of the case and align it flush with the front panel and then screw it in. Without doing this, chances are the wrong holes will be selected and the drive will not be aligned. To complete drive installation put all the drive bays back in their original location.

5.25" device installation.

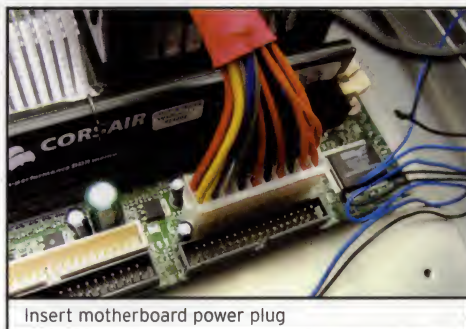
Similar to the first steps of installing the 3.5" drive start by removing the 5.25" face plate(s) for the items you wish to install. If you plan on installing two optical drives (in the case of the Matrix PC, this consisted of one DVD reader and one CDRW) make sure that the jumpers are set correctly. You can either force the master and slave device through jumpers (all jumper settings are



Make sure you use a Philips head screwdriver



Plug in P4 bus power plug



Insert motherboard power plug



Make sure HDD jumpers are set correctly

conveniently printed on the device) or use cable select (CS) functionality. CS is a wonderful addition to IDE devices and allows you to set the master/slave device based on cable position. The plug furthest from the beginning represents the master device, the plug in the middle being slave.

The very impressive case we used for the Matrix PC featured a series of handy guides for the installation of 5.25" devices but other cases may not have these and instead will require the units to be screwed directly into the bay. Guides are much easier as you only need to attach them to the sides of the device. If using guides, use one screw a side and insert it into the bay to see if it sits flush or not. If not, remove the guide, move up a hole and try again. Screws set diametrically opposite offer the best weight distribution. This stage is easy so you really shouldn't have any problems with it.

Cabling

These days cabling is nice and simple with the biggest hassle that if you're using the standard flat, grey ribbon cable trying to fold it efficiently for max airflow and so it doesn't constantly get in your way. The Matrix PC used round floppy and IDE cables which allows for better airflow and access to mounted devices.

Modern IDE cables are appropriately keyed with a bulge of plastic designed to fit into a slot on the connector mount on the motherboard. Older systems can have unkeyed connectors. "Red to one" is the key

phrase here as the red stripe down every IDE/Floppy ribbon cable connotes pin "1" and matches up with the "1" printed on the board which should be easy to see.

Modern motherboards that feature the "blue" ATA 100/133 connector (such as the Matrix PC) are simplicity to plug in. ATA100/133 compatible cables will have a blue plug at one end (which goes to the blue socket on the motherboard) and black connectors for the master/slave device. Both the primary and secondary IDE channels will feature blue connectors and for best results connect your HDD(s) to the primary channel and your Optical devices to the secondary channel. Whatever you do, do not, ever, put an optical drive (DVD reader / CD burner) as the slave/secondary device on the same channel that the HDD is. This is because the

HDD will throttle down to the slow speed of the optical device and dramatically reduce performance. It's good, standard practice to always put optical devices on the second IDE channel.

Plugging the Floppy cable in is just as simple, modern cables are keyed so will only go in one way, otherwise the "red to one" rule still applies. If there is no discernible "pin 1" on the floppy or HDD connector than an old rule is to have the red stripe nearest the power socket.

All cabled up, plug the power into the devices. There are two types of power plug in a PC. The 5.25" plug which is large, features 4 pins and has the top corners cut off. The 3.5" plug is much smaller and keyed differently in that there is a clip on the bottom to keep the plug in place. Grab a 5.25" plug and plug it into the HDD. Remember, angles are bad (photo's with cables on angle are purely for artistic purposes, not recommended as a method of installation). Try and line the plug up with the power input on the HDD and then press evenly, but gently and firmly until the plug is secure and tight in place (it should require some effort to unplug - if it comes out



Mount HDD in case bay



Install fan to HDD bay



Screw drive into bay



Install fan to HDD bay



Install FDD to bay

loosely keep applying pressure until it is snug). The plugs are keyed so will only go in one way. Find the smaller 3.5" power plug and line it up with the power connector on the floppy drive. This plug is also keyed so will only go on one way. Be careful that all four pins on the drive are lined up with the power plug as it is possible to miss slightly and only get three of the four pins inside the plug.

Installing AGP and PCI devices.

Use your screwdriver to free up as many slots as you have PCI/AGP devices and it's nice and easy from this point. Installing your AGP card is a matter of lining it up with the slot and pushing down until it is firmly in place. Use the screw from the bracket to screw the card in and press down on the back to make sure it hasn't popped out a touch from being fastened into place.

The only other card we had to install for the Matrix PC was the sound card. When installing this kind of device make sure that it is placed in the slot furthest from the power supply (PSU). This is because sound cards can be notorious for amplifying PSU noise. It's an identical process to the AGP card, plug it in, screw it down and push down on the back to make sure that it's secure in the socket.

Power switch and other connectors

This stage of the build process can be one of the most annoying. There's no simple solution that can be offered here. Your only option is to pull out the motherboard manual and find the section that lists the pins and location of the: power switch, speaker, reset button, power

light and HDD light. Switches and functions vary between case and motherboard with the only certainty being that you will need to consult the manual to discern the location. The best advice that can be given is to make sure that you're looking at the motherboard in the same direction that the manual displays it. Be patient, there's no guarantee with these switches and I've had unpleasant situations particularly with boards where the manual was incorrect and the only option was trial and error.

For those that aren't interesting in modding, this is your stop. At this point you're ready to start the machine up and install the OS. If the machine fails to boot first time, don't panic! Remain calm, unplug the power cable from the PSU and start by making sure that everything is seated properly. Push down on AGP/PCI and memory and start the system again and listen for beeps. All motherboards use a series of beeps to communicate the cause of the failure and you will need to consult the motherboard manual to discern the beeps. Some really modern motherboards make it super easy as they have an onboard speaker and will communicate with you in English where the problem is. For the most part though there shouldn't be any problems and you can sit back and feel smug that you built your own machine.

Modding

Contrary to rumours spread about by those wanting to be "l33t" modding isn't actually that difficult at all. The reality is that if you can use a drill or have ever installed a door knob than modding is simplicity in itself. Especially when you have handy places such as PC Casegear (www.pccasegear.com.au) to buy all kinds of easy to install "kit" from.

Cold Cathode lamps

The Matrix PC features two green "neon-esque" cold cathode tubes that make for a great effect, especially at night. Start by deciding where you want the lamps to feature. We chose one vertical lamp at the back of the case and one horizontal lamp at the bottom.

The first challenge was figuring out where to mount the switch for the green CC lamps. As is the situation with most cases there is metal behind the plastic front cover which is difficult to drill through and awkward to work on. The best solution I found was to take a spare 5.25" face plate and use that to mount your switches.

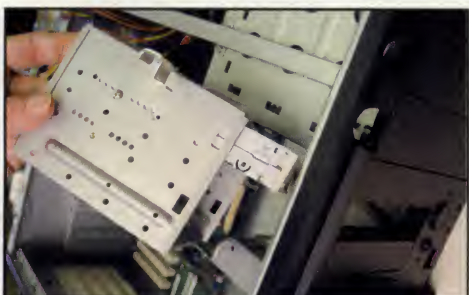
Start by disconnecting the button from the inverter. The PC Casegear lamps we used featured clips that were easy to remove from the button but make sure you note which clip went where. Use a piece of paper to mark this information. In the case of the PC Casegear lamp the red wire from the inverter went to the top connector (switch to "1") with the longer red wire from the PS plug connecting to the bottom



Mount FDD into bay



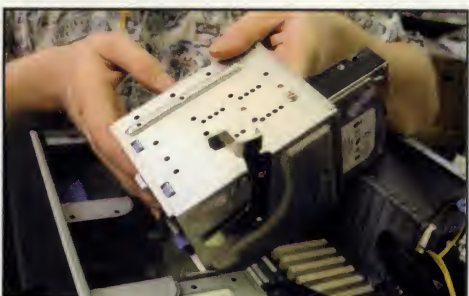
Remove 3.5" front face plate



Install FDD bay back into case



Adjust drive position (if required)



Install HDD bay into case



These are 5.25" guides



Install guide to 5.25" device



Make sure jumpers for optical device are set correctly



Insert 5.25" device into case

connector (switch to "0"). Other neon kits might not have a switch that is so easily connected and may require soldering.

Next, rip out your drill, grab the face plate and mark where you would like the buttons to feature. Make sure you use a large enough drill bit that is about 3/4 the size of the button and drill the hole. Next, use a cone sander attachment for your drill (available at Bunnings hardware and Mitre 10 - see screenshot) and slowly increase the hole in the face plate. Regularly pick up the switch and compare the size of the hole with the switch, you're looking for a tight fit so just expand

the size of the hole slowly and keep checking. When the switch fits (should require some force as there are two clips that when pushed through the hole keep it in place) get out a file (we used a kindly donated nail file actually) to smooth the edges of the hole.

It's now time to select a place for the CC lamp. The two locations used in the Matrix PC were vertically at the end of the motherboard and horizontally at the bottom of the case. For "overall" lighting the vertical lamp worked best but for fuller illumination a vertical and horizontal lamp is needed.

Wherever you decide on the



5.25" device installed

lamp(s) it's just a matter of clamping them down. This was a matter of using the provided double sided tape to stick down the two plastic clips and then thread a fastener through to attach the lamp. Once the plastic fastener is secure and tight you can optionally trim off the excess plastic with a pair of cutters or even scissors.

The lamp secured and the button installed you need to find a place for the inverter. We chose the empty

drive bay behind the modified faceplate. This allowed the switches to be connected easily but at the expense of sacrificing a 5.25" bay. The inverters are secured with Velcro so can be stuck anywhere. If you don't want to sacrifice a drive bay you'll have to make an executive decision regarding the location of the inverter.

Once the inverter is secured it's just a matter of reconnecting the front button. Follow your notes from



Plug in floppy cable to motherboard. Red to one



Plug FDD cable to floppy drive.



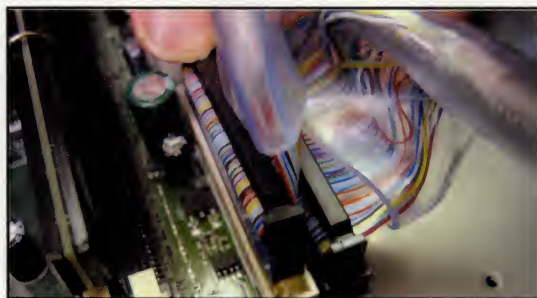
Floppy drive installation. Red towards power



Plug IDE cable into motherboard. Blue end to board



Plug furthest end of IDE cable to master device



Plug secondary IDE cable to secondary socket



Secondary cable to optical device



The furthest plug equals master, middle plug equals slave

when you disconnected the wires to the front switch (pccasegear lamp - wire from inverter to "top"(i.e. the "1" position) socket, wire from power plug to bottom ("0" position). Switches now wired install the front face plate which is as easy as clicking it into place.

EL (electroluminescent) case badge light kit

For that totally "modded" look, one needs a light-up case badge. Installing this will be different for each case but here's how we did it for the Matrix PC.

Installation started by removing the front door which covered the drive bays where the 25mmx25mm depression for a case badge is and drilled a small hole that was large enough for the attached plug and wires to fit through. Although the manual advises attaching the 25mmx25mm double sided paper to the badge depression first this had

the unpleasant effect of catching on the drill and winding up into a crumpled mess. For best results drill the hole first, attach the double sided tape and then use an object to puncture through the tape. If you wreck your double sided tape, glue will work and not affect the electronics of the el badge.

With the double sided tape in place poke the wired end of the first part of the switch through the hole and secure the pink EL plastic to the tape (or glue if tape is not sticky enough or damaged). Next, make a logo (art departments are handy for this) then remove the plastic from the raised plastic badge front and affix the printed out badge to it. We actually used a 20mm x 20mm image for the badge so that there would be a lit border. Best way to stick the badge on is to line up one corner accurately and then evenly press the print to the plastic front. Be extremely careful as you're only

going to get one chance at this. Use some small drops of glue to affix the badge to the pink EL surface.

Depending on the case the next step could be as simple as connecting the end of the el badge to the inverter or if you're using a server style case such as the Matrix PC then you will need to affix some more wire to go from the door, into the case and then to the inverter. We got a little fancy with the case badge and wired it up to the el cable's dimmer/inverter which allowed for the badge light to be dimmed or set to blink. As the el cable inverter had two connectors this involved no extra configuration or wiring.

EL cable and dimmer

For even more GREEN goodness we used an electroluminescent (el) cable to tidy up the power connectors inside the case. As this came with an inverter and attached

Items used

Achieva

www.achieva.com.au
(02) 9742 3288
Western Digital 200GB HDD

Altech

www.altech.com.au
(02) 9735 5656

Samsung DVD Reader

Samsung CD Writer

Sony Floppy Disk Drive

512MB of Corsair PC3500
DDR433 memory

Creative

australia.creative.com
(02) 9666 6100
Sound Blaster Audigy

Hercules

www.guillemot.com.au
(02) 8303 1818
Hercules 3D Prophet 9700
Pro (PCPP Gold logo)

Intel

www.intel.com.au
D845GEBV2 - DDR433
motherboard
2.80Ghz Pentium 4
Processor

PC Casegear

www.pccasegear.com.au (03)
9568 0932

LIS - CPU Temperature /
Fan speed and Graphic
equalizer.

Black server case with
transparent window
380W PSU

2 Green Cold Cathode lamps

1 Green LED fan

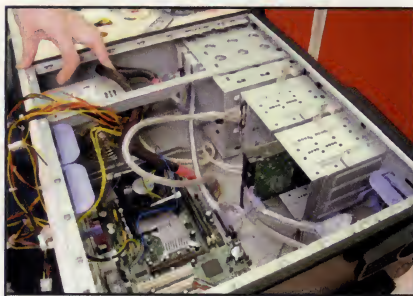
2 Blue LED fans

1 EL badge kit

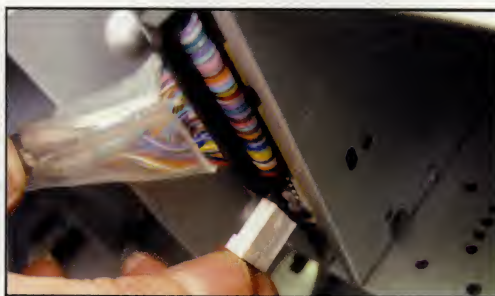
1 EL cable kit

1 Laser LED

1 UV Floppy and 2 IDE
rounded cables



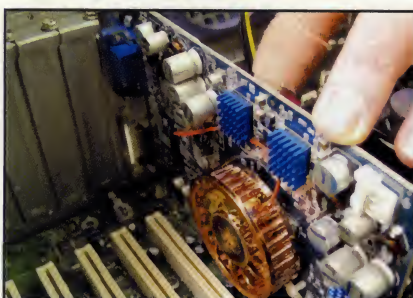
This is how it should look so far



Insert 3.5" power to floppy drive



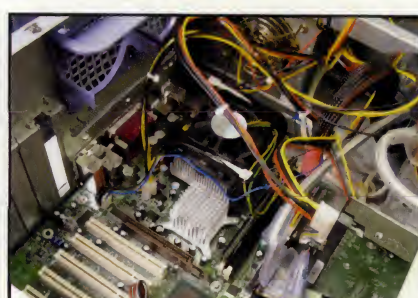
Plug 5.25" power to HDD



Install AGP video card



Install sound card into PCI slot furthest from PSU



Yes, there will be many many wires everywhere...



Warning: metal behind face plate



The LIS being installed



5.25" devices sitting flush with front panel



Drill hole in face plate from the rear



Gradually increase hole size with cone sander until switch fits tightly



Use a file to smooth edges. Don't file too hard or you will oversize the hole

dimmer switch it was necessary to modify another front panel. Depending on your case and how many lamp switches you have installed there may already be room on the 5.25" front panel for the knob. In the case of the Matrix PC we used a spare 3.5" faceplate as there was nowhere symmetrical left on the 5.25" plate.

To install the front knob start by removing the appropriate face plate and decide on a location for the knob. The plastic knob comes off so just apply a moderate amount of force and pull to remove the knob and then unscrew a metal nut at the base of the metal shaft. Note at the bottom of the shaft there is a wider threaded area. This is the approximate size of the hole you need in the plate. Get your drill out again and make a hole a little larger than the wide threaded area. Insert the metal shaft through the hole in the face plate and then apply the nut and secure it in place with a spanner or socket driver. Turn the shaft all the way off with an anti-clockwise motion and examine the plastic knob so that the white dot faces up (to the north) and push it back onto the threaded shaft. This will have the dial sitting vertically in the off position.

The el cable came with another switch that sets the inverter to off/on/flash. A square switch this was a little trickier to mount and a patient person could sit there and try to cut out an accurate square shaped hole otherwise a drilled hole will suffice. This is a tricky little switch because you also need to drill tiny screw holes to hold the switch frame in.



The EL badge with cable on cover

Alternatively the switch could be mounted internally but you would need to open your case to change settings.

The actual inverter and lead to the knob is quite short in the el cable kit so you will need to mount it in the bay behind the face plate using the supplied Velcro. Once done, it is just a matter of connecting the el connector and the front badge to the two leads from the el cable inverter and you're done.

Sit back, enjoy your handy work and revel in the fact that you've just built and modded your very own machine. Leet is now your middle name so get out there and show off that multi coloured beast at the next LAN session you attend.

Jere Lawrence



And here's one we prepared earlier: Looks great and oh so easy to do!

INTEL 3.06GHZ P4 WITH HYPER THREADING

IA-32

The two logical processors inside the 3.06Ghz chip consist of the IA-32 data registers, segment registers, control registers, debug registers and each logical processor also has it's own advanced programmable interrupt controller (APIC).

They say that while monopolies stagnate progression, competition breeds ingenuity and betterment. This is certainly the case with Intel who has just released the world's fastest consumer base CPU and also happens to be the first to break the 3Ghz barrier. This chip isn't just about speed though, brand new technology called Hyper-Threading allows it to reach new levels of multi-tasking performance and is definitely technology to watch.

Hyper Threading

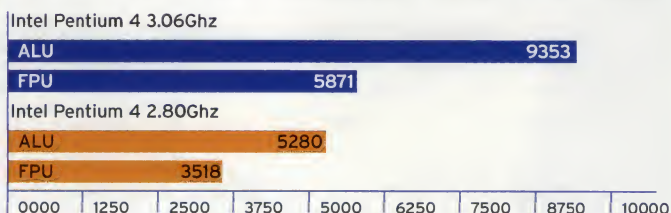
The most significant and interesting new feature of the 3.06Ghz P4 is a function known as Hyper-Threading (HT). What this essentially does is allow a single CPU to process two threads simultaneously, in hardware. The really cool thing about this is that when you examine the performance window of the task manager the CPU usage history is split in two to represent the chips ability to process two threads at the same time.

The way HT works is quite clever and can be explained both simply and

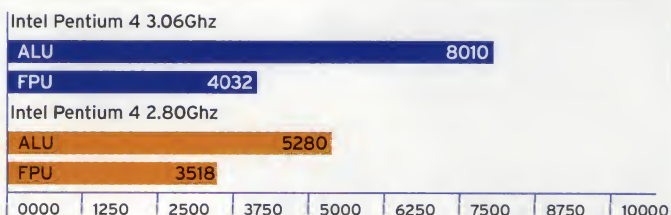
technically. The technical explanation is that the 3.06Ghz has had added to it a series of new microscopic additions. These are: Instruction streaming buffers, Next instruction pointer, Instruction Translation Lookaside Buffer (TLB), Return Stack Predictor, Trace Cache Next IP, Trace Cache Fill Buffers and Register Alias Tables. The two logical processors each have their own IA-32 architectural state and after power up and initialisation can be individually halted, interrupted, or directed to execute a specific thread independently from the other logical processor on the chip.

To put it simply, all the caches and logic controllers of a P4 have been doubled so that two instructions from both threads are simultaneously

SiSoft Sandra Memory Benchmark (with Hyper-Threading enabled)



SiSoft Sandra Memory Benchmark (without Hyper-Threading enabled)



3D Mark (with Hyper-Threading enabled)

Intel Pentium 4 3.06Ghz Ti4600 1024x768x32:	12839
Intel Pentium 4 2.8Ghz Ti4600 1024x768x32:	11950

0000 | 2000 | 4000 | 6000 | 8000 | 12000 | 14000 | 16000 | 18000

3D Mark (without Hyper-Threading enabled)

Intel Pentium 4 3.06Ghz Ti4600 1024x768x32:	13779
Intel Pentium 4 2.8Ghz Ti4600 1024x768x32:	11950

0000 | 2000 | 4000 | 6000 | 8000 | 12000 | 14000 | 16000 | 18000

dispatched for execution by the processor core. The processor core then executes these two threads concurrently using out-of-order instruction scheduling to keep as many of its execution units as busy as possible during each clock cycle.

This differs from a traditional dual processor configuration in that a HT processor still shares the core computing aspect of the chip such as the floating point unit (FPU) and arithmetic logic unit (ALU) and as such a HT processor could not process two FPU requests at the same time. A dual processor system consisting of two chips each with their own FPU and ALU alternatively could process two simultaneous FPU instructions.

The next important consideration





is that a 64-bit multi-processor capable operating system such as Windows XP (including Home version) or Linux (kernel 2.4.18 and above) must be used in order for hyper threading to work. This is because the HT process closely resembles that of a traditional multi-

processor platform and uses the CPUID instruction from the OS to detect the presence of IA-32* processors. The chip therefore is totally seamless to the OS as the same mechanisms used to wake physical processors apply to the logical processors in the 3.06Ghz P4.

Performance

At 3.06Ghz we already know that Intel's latest offering is incredibly fast and will obviously set a new benchmark record but with HT the goal posts have been moved so to speak and it's necessary to examine it from a different perspective.

In regard to HT performance the 3.06Ghz produced mixed results which is to be expected given that this is brand new technology that benchmarking software isn't aware of yet. Actually, most of them listed the processor as "Unknown brand -1232Mhz" so it's possible that some tests may have produced erroneous results.

When it came down to having to do two tasks at the same time the P4 3.06Ghz was exemplary in its performance. The best way to describe the results is with a series of tests demonstrated by Intel that we successfully reproduced. The first test was done with HT off (from the BIOS) and involved running a copy of Nascar 2003 in a window in the background and then running Outlook and opening a message with a PowerPoint presentation of over 100 slides from the email. With Hyper-Threading off the entire operation took over 3 minutes with the usual freezes and "chugs" that occur when trying to do two processor intensive tasks.

Repeating the same test with Hyper-Threading enabled the results were jaw-dropping. Running the same copy of Nascar 2003 in a window Outlook opened instantly as if nothing else was running. Opening the same PowerPoint slide it came up as if the processor was completely idle and the whole operation completed in around 10 seconds. This is the best example of multi-tasking performance increases that HT offers but that's not to say that all multi-tasking will be equally accelerated. It is extremely

important to understand that the P4 3.06Ghz cannot hardware multi-task two requests to the same processing unit. In the above example, Nascar would be making a number of floating point calculations and would therefore be making heavy use of the floating point unit inside the microprocessor. Outlook on the other hand would be utilising more the arithmetic logic unit and system bus for HDD requests making perfect use of the "whole" chip. If however you were to run two 3D games in a window, side by side then performance would drop significantly. This is because both applications threads would be successfully queued in the two logic controllers but would still be bottlenecked by the singular floating point unit.

Another interesting discovery is that the P4 3.06Ghz produced better benchmarks with HT disabled. This isn't to say that HT was bad but rather that the benchmarks prefer a "conventional" CPU to base its calculations off. There was no visibly discernible difference between frame rate with HT on vs off though with HT on you could [Alt-TAB] from the full screen game to the desktop with lightning speed as well as being able to swap back equally effortlessly.

To those who have noticed the extremely high memory scores there's no need for alarm. This is purely because Intel sent us an i850E motherboard with 512Mb of 1066 RDRAM memory, so we were expecting high results. The positive side to this is we now have completely Beast worthy benchmarks and can say quite categorically that 1066Mhz memory is fast, damn fast.

Although this chip isn't cheap, the price isn't that bad really, especially when you consider that the P4 2.8Ghz was released at \$1700. Intel's latest offering, the P4 3.06Ghz is fast, offers excellent hardware multi-tasking and will literally transform your machine into the beast. If you can afford it, get it. Otherwise you can join our collective yearning as we wait for the price to drop some more.

Jere Lawrence

Unreal Tournament 2003 (with Hyper-Threading enabled)

Intel Pentium 4 3.06Ghz - GeForce 4 Ti4600 1024x768x32

Flyby 175.68

Botmatch 69.25

Intel Pentium 4 2.80Ghz - GeForce 4 Ti4600 1024x768x32

Flyby 174.2

Botmatch 66.2

000 25 50 75 100 125 150 175 200

Unreal Tournament 2003 (without Hyper-Threading enabled)

Intel Pentium 4 3.06Ghz - GeForce 4 Ti4600 1024x768x32

Flyby 169.00

Botmatch 72.00

Intel Pentium 4 2.80Ghz - GeForce 4 Ti4600 1024x768x32

Flyby 174.2

Botmatch 66.2

000 25 50 75 100 125 150 175 200

Affordable Alternatives

Asus is one of the first motherboard manufacturers to release a board that offers support for the 3.06Ghz processor and DDR memory. For those that find RDRAM memory too expensive or wish to upgrade an old system and already have perfectly good DDR memory than this is an excellent solution. Another company that is offering a 3.06Ghz solution is Dell. The Dell Dimension 8250 ships with a P4 3.06Ghz, 256MB of PC1066 RDRAM, 40GB HDD and 17" colour monitor for \$3098. Although by no means a perfect system especially considering the small HDD and tiny amount of memory this could be a good choice for someone who wants to cannibalise their older system and incorporate it into a newer one. Just make sure you have at least 512MB of memory, 256MB is not good for gaming.

This is currently the Ferrari of processors. It's fast, highly desirable and very expensive.

Price: \$1456
Distributor: Achieva
URL: achieva.com.au
Phone: 02 9742 3288

94

CREATIVE SOUND BLASTER AUDIGY 2 PLATINUM

Mere CD Quality will never sound good again

Platinum which is Creative's premium offering and includes a remote control and a 5.25" front panel that's chock full of inputs and outputs (see boxout) but costs a premium price. The Audigy 2 however will also ship sans the front panel for the more reasonable price of \$X.

Crystal Clear

The first thing about the Audigy 2 that hits you like a ton of bricks is how incredibly quiet it is. This is due to 106dB SNR (see SNR boxout for definition) which is extremely clean and hiss/crackle free. To compare, an SB Live is 96 dB SNR and the Audigy is 100 dB SNR, the increase to 106 is a very welcome addition and the Audigy 2 is the quietest card we've tested so far.

At the core of the Audigy 2 is the CA0102 Digital Signal Processor (DSP) which represents a progression of the Emu10k2. Creative however have stressed that there is a large leap of technology between the 10k2 and the CA0102, particularly along the lines of 24 bit / 96Khz 5.1 and 24 bit / 192Khz stereo playback. The primary factor to home enthusiasts is that as long as you have a DVD ROM drive, the Audigy 2 will convert your PC into a multimedia system that can process Home Cinema decoding in 5.1/6.1, offers full 6.1 3D sound for DirectSound compatible games as well as EAX Advanced HD for surround, reverb and occlusion effects.

DVD Audio (DVDA)

One of the prime uses for 24-bit 96/192Khz playback is the pseudo-new sound format called DVD Audio. DVD Audio has been available since the year 2000 but

Like a certain video card war, sound companies these days cannot sit on their laurels for long and need to be releasing new technology with increased regularity to ensure market dominance. Such is the case with the Audigy 2 which represents Creative's best effort and most remarkable sound card yet.

Audigy 2 and Platinum

Now for the good and bad news. The good news is that the Audigy 2 is packed with a host of new features that fully warrants an upgrade. The bad news is that there are so many

additions that even Audigy owners will be forced to contemplate an upgrade.

To elaborate, here's a list of new features that the Audigy 2 offers over the Audigy:

- Support for DVD Audio
- 24 bit 192Khz playback
- Records at 24 bit/96Khz
- Dolby Digital EX decoding
- Seven analog outputs
- 6.1 sound in games and compatible THX/Dolby EX movies
- Signal-to-noise ratio of 106 dB CMSS v2.0

The version of the Audigy 2 we were given for review is the

Inputs and Outputs

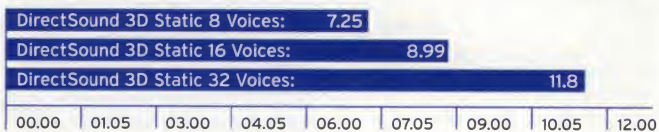
Audigy 2
3.5mm mini jack - Front speaker output
3.5mm mini jack - Rear speaker output
3.5mm mini jack - Subwoofer and centre output
5.1 compatible S/PDIF mini-jack output
Line-in
Microphone in
SB1394 port
Internal TAD-in input
Internal CD-in input
15-pin MIDI / game port on external bracket
SB1394 / Firewire connector
AD-EXT connector for Platinum rack

Audigy 2 Platinum Front Panel
Second SB1394 port
Headphone output with volume control
Optical and coaxial S/PDIF outputs
Optical and coaxial S/PDIF inputs
Left/Right RCA input
Two-jack microphone / Line-in 2 with gain control
MIDI-in and MIDI-out
Infrared port for Remote control
Remote control

has required ridiculously expensive playback equipment and has only ever been marketed as an extremely high-end "audiophile only" format. This has certainly changed with the Audigy 2 and will be a major factor in the furthering of this sound technology as Audigy 2 owners are essentially going to be the first mass market consumer base for DVDA.

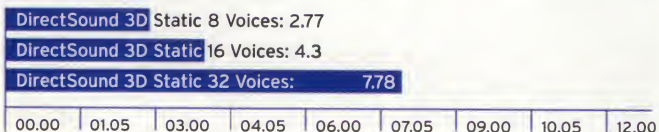
CPU Utilisation at 16 bit 44.1Khz

Extigy



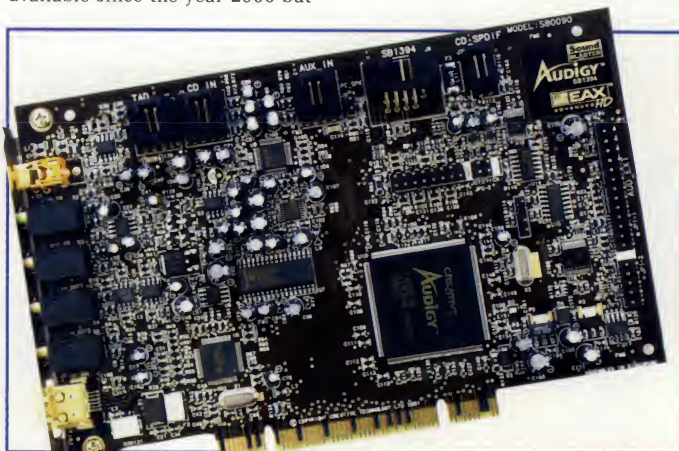
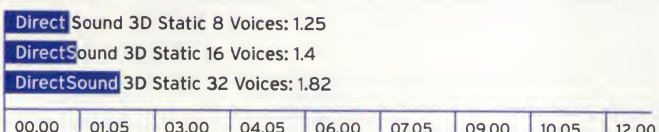
CPU Utilisation at 16 bit 44.1Khz

Audigy



CPU Utilisation at 16 bit 44.1Khz

Audigy 2



The format is entirely 24-bit with stereo playback of 192KHz (insanely high) and 5.1 / 6.1 surround output at 96KHz. Sound quality is amazing and once you hear DVD Audio, CDs sound flat and "blurred". DVDA sound quality is alive, deep, vibrant, resonant, and of a clarity that is instantly discernible from 16-bit 48KHz. The surround effects it offers are equally impressive with clear, concise delineation of speakers which the provided demo CD puts to good use with plenty of rear, front and surround pans. This may sound melodramatic but is true. Once you hear DVD Audio, particularly out of the Audigy 2, you become "spoiled". DVD movies, CD sound, anything that isn't 24-bit 96KHz sounds noticeably inferior and you will pine for the higher sound quality. For those interested, there aren't a large number of DVDA discs available yet but a good selection can be perused at www.buydvdnow.com.

The only complaint that can be made in regard to the playback of DVDA is that the digital outputs on the card and front panel are disabled to prevent digital copying. This isn't any fault of Creative though as this restriction has been imposed by the DVD Forum to aid in the prevention of piracy, which will probably be cracked in under a month and like most anti-piracy measures will annoy the consumer much more than it will slow down large scale piracy.

CMSS

Although the Audigy 2 features excellent surround functionality your standard CD, MP3 or wave file is only recorded in stereo which means that playback will only utilise 2 speakers irrespective. CMSS has been around since the Sound Blaster Live and was implemented in the Audigy with version 2 being Creative's latest iteration of their "Creative Multi-Speaker Surround format". More than a token upgrade, CMSS 2 represents a giant leap over CMSS. The differences were mainly in the quality of the specialisation and how the different frequencies were amplified. Testing CMSS with a normal music CD all the speakers were activated and there was a slight sense of a 3D environment but vocals and instruments still tended to merge together. CMSS 2 changed this dramatically and more

Definition of SNR

An acronym for signal-to-noise-ratio, SNR is a measurement to connote how clear an electronic sound signal is. Once understood the system is simple. The higher the number, the less hiss and background noise there is. Alternatively, the lower the number, the more noise is produced. Any SNR rating in the negatives would signify enough static noise that it would sound like an un-tuned radio.

CA0102 DSP features

24 bit / 96KHz 5.1 and 24 bit / 192KHz stereo playback
Dolby Digital 5.1, DTS, Dolby Digital EX decoding
106dB SNR playback
6.1 sound in DirectSound 3D games
32-bit effects engine with real-time effects, mixing and 3D positioning;
64 hardware-managed DS3D voices;
Supports DS3D, EAX 1.0, 2.0 and EAX Advanced HD;
16/ 24-bit 48/ 96 kHz input and output;
8-, 16- and 24-bit recording at 8 kHz, 11.025 kHz, 16 kHz, 22.05 kHz, 24 kHz, 32 kHz, 44.1 kHz, 48 kHz and 96 kHz;
2x16-channel MIDI hardware synthesizer;
64 hardware-managed polyphony voices;
THX certified

capably converted a stereo source into surround. Vocals featured a lot more prominently from the centre speaker and instruments were more effectively split. Drums featured more from the rear while bright instruments had a front speaker focus. The effect was astounding and a very real improvement over CMSS. CMSS 2 worked equally well with non DirectSound 3D games and although can't create true surround sound from a stereo source, did give the non DS3D environment a fuller feel to it.

Speaker Calibration

Anyone that has tried to tune their surround sound sweet spot or attempted to equalise the volume on front and rear amps will jump for joy with Creative's latest offering. The speaker calibrator is an excellent utility that allows you to tune the surround sweet spot right to your desk chair. This is achieved with a series of tests where you can change the volume of each individual speaker to compensate for any lack of symmetry in a room/speaker setup. The process worked extremely well and after calibration it was easier to discern sonic direction.

Midi playback

Midi playback hasn't changed much between the SB Live/Audigy and the Audigy 2 and unfortunately the base GM instrument set is still quite weak. Piano's are of above average quality but generally they lack an element of brightness with string and horn sounds being the worst. For the most part though, this is a moot point because the Audigy 2 can have its entire instrument set replaced through the use of soundfonts. There are many free soundfonts and many free General Midi set replacements, all of which are of excellent quality and available for you to download online.

CPU Utilisation at 16 bit 44.1KHz

Extigy

DirectSound 3D Streaming 8 Voices:		7.04						
DirectSound 3D Streaming 16 Voices:		9.03						
DirectSound 3D Streaming 32 Voices:		12.4						
00.00	01.05	03.00	04.05	06.00	07.05	09.00	10.05	12.00

CPU Utilisation at 16 bit 44.1KHz

Audigy

DirectSound 3D Streaming 8 Voices: 3.88								
DirectSound 3D Streaming 16 Voices: 3.81								
DirectSound 3D Streaming 32 Voices: 8.5								
00.00	01.05	03.00	04.05	06.00	07.05	09.00	10.05	12.00

CPU Utilisation at 16 bit 44.1KHz

Audigy 2

DirectSound 3D Streaming 8 Voices: 0.946

DirectSound 3D Streaming 16 Voices: 1.74

DirectSound 3D Streaming 16 Voices: 1.73

00.00	01.05	03.00	04.05	06.00	07.05	09.00	10.05	12.00
-------	-------	-------	-------	-------	-------	-------	-------	-------



More frames

An extremely pleasant surprise was that the Audigy 2 increases frame rate. Yup, you read that right. With on-board MP3 decompression and a more powerful chipset the Audigy 2 uses the least amount of our precious processor. As you can see from the graph, the Extigy with its reliance on USB is the most CPU intensive soundcard, the Audigy fares well but at 32 voices uses almost 8% of the processor while the Audigy 2 never went higher than 1.74% processor utilisation. This translated into a gain of about 10fps extra when gaming and was a very welcome bonus.

EAX Advanced HD hasn't changed a whole lot since the Audigy except that on an Audigy 2 it will also use the rear-centre speaker. The format is excellent, especially in Soldier of Fortune 2 where you could clearly hear where enemy fire was coming from.

Unfortunately in typical Creative style the release drivers are only about 95% stable. Occasionally there is a lockup when trying to open the EAX control panel and when booting your machine you have a 33%

chance of blue screening. Considering Creative's terrible reputation with drivers it's strange that they've let their customer base down again but at least an update can be counted on to download in the future.

Overall the Audigy 2 is an amazing and thoroughly desirable sound card. It's fully THX approved; extremely quiet (no hiss or crackle); outputs extremely clear sound; can playback every format of Dolby including Dolby Digital EX; can play DVD Audio at full quality; can up-mix a stereo source to surround and will even allow for 96KHz recording. The clincher though is its low CPU utilization and the pleasant increase in frame rate you will get. It's not cheap but nothing of high quality ever is. From audiophiles to gamers, this is the card for you.

Jere Lawrence

The best sounding most feature rich sound card available. Only let down by buggy drivers.

Price: Audigy 2
Platinum - \$549
Audigy 2 - \$299
Distributor: Creative
URL: Aus.creative.com
Phone: 02 9666 6100

95

Asus A7N8X Motherboard

■ Price: TBA ■ Distributor: Achieva ■ URL: www.achieva.com.au ■ Phone: 02 9742 3288

Could this be the VIA KT400 killer? Those were the first thoughts that ran through my head when I heard that an nForce 2-based motherboard was on its way to the labs this month. Some may recall the debut of the original nForce chipset, hyped as the "KT266 killer". Sadly, the amount of hype surrounding the chipset lead to quite a disappointment, as the nForce did not provide enough of a performance increase over the KT266A chipset to justify its morbidly high price. Thus, nVidia headed straight back to the drawing board and thankfully, it looks like they've gotten it right this time.

As many of you that read the AMD FSB article in PCPP#81 are aware, one of the nForce2's most impressive features is dual-channel DDR400 memory support, meaning that there are two fully independent 128-bit DDR controllers operating concurrently,

leaving you with effectively double the bandwidth, as well as a reduced latency.

Riding the first wave of nForce2 boards directly into Sunny Redfern is the Asus A7N8X. Firstly, the board is truly feature-packed, with SerialATA & AGP 8X support, two IEEE1394 ports, two 10/100 LAN ports, and six USB2.0 ports. Furthermore, the chipset's integrated APU (Audio Processing Unit) provides onboard Dolby Digital encoding and 6.1 channel audio. We found this audio solution to be of a very high standard, and would even go as far as saying that it's the highest quality onboard audio solution we've tested to date.

Furthermore, the board includes five PCI slots and three DDR DIMM slots, which is about the standard for most modern motherboards. That said, some keen manufacturers have set the bar even higher with the inclusion of six PCI slots and four DIMM

slots. Also of note is that the nForce2 chipset supports 3GB of DDR 400/333/266/200 memory, which is more than enough for any current desktop system.

If we could make one complaint about the A7N8X, it would be regarding its physical layout. Due to the fact that the ATX power connector has been placed right next to the IDE and floppy headers, it is quite difficult to install/uninstall drives whilst all four are plugged in. Furthermore, the CPU socket has been placed very close to a number of capacitors, meaning that those of you with larger, more exotic heatsink/fan units may have to do a little or more capacitor bending before installing.

The board was tested on an AthlonXP 2200+ based system with 256MB of Corsair XMS3200 memory as well as an Abit Ti4200 OTES graphics card. For comparison purposes, we also included the KT400-based Abit AT7-MAX2 (reviewed last issue in our KT400 Roundup). As you can see from the performance graphs, the results proved very interesting indeed. In most of the benchmarks performed, the nForce2 board slightly outperformed the KT400, however, in 3DMark2001 SE and the memory benchmarks it sat

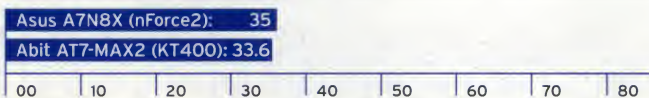
slightly behind. Overall, though, the performance difference between the two chipsets was negligible, which is quite a disappointment as we were hoping that nVidia's dual-channel DDR solution would have provided a tangible performance increase. That said, nVidia do deserve a hearty pat on the back for producing a product that performs on par with what is the current market leader.

In summary, we were quite pleased with most aspects of the Asus A7N8X and the nForce2 chipset as a whole. However, there are a number of things to take note of before making a purchase. Firstly, if performance is all you are after, you would be foolish to upgrade to the nForce2 from a VIA KT333/KT400-based motherboard. That said, if the nForce2's rich feature-set has taken your fancy or you are upgrading from an older platform, we would not hesitate to recommend the A7N8X or any other nForce2 board for that matter.

The bottom line is, if you are looking for a feature-rich, high performing motherboard to go with your AMD Athlon/Duron processor, aside from a few layout issues the Asus A7N8X is highly recommended.

Asher Moses

Content Creation Winstone 2002



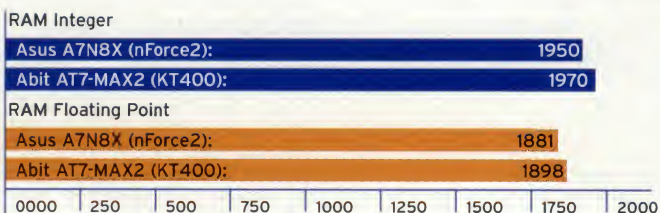
Business Winstone 2001



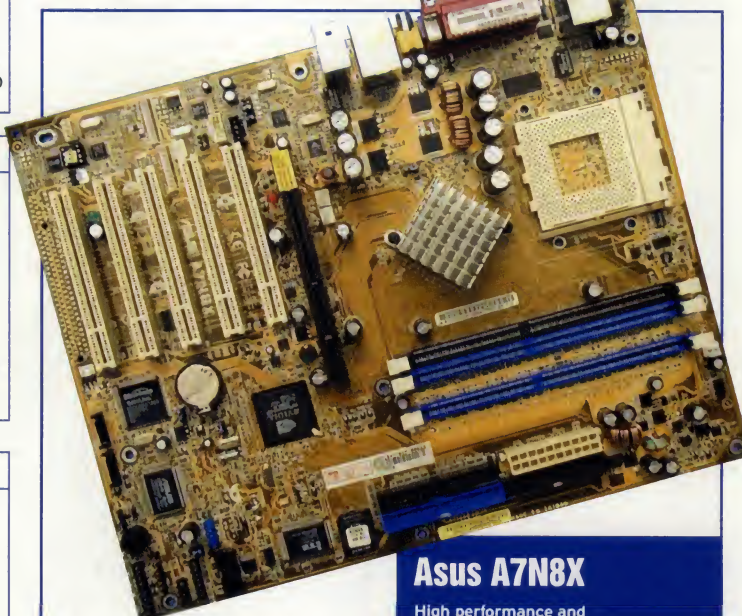
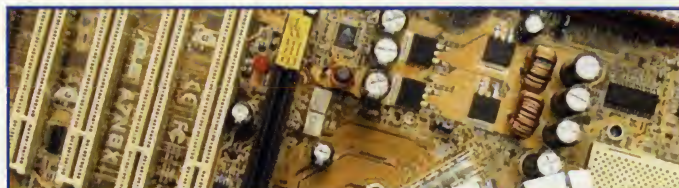
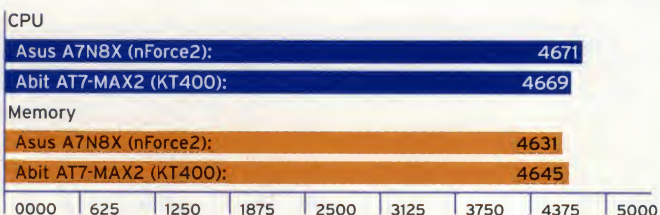
3DMark2001 SE - 1024x768 32-bit



SiSoft Sandra Memory Benchmark



PCMark2002



Asus A7N8X

High performance and plenty of features, let down by a bad physical layout and its inability to live up to the hype.

88

Corsair XMS3500 Memory

■ Price: \$301 ■ Distributor: Altech ■ URL: www.altech.com.au ■ Phone: 02 9748 2233

CA few months back, we had the pleasure of taking a look at Corsair's XMS3200 (DDR400) memory and were very impressed with both its overclocking potential and ability to run at DDR400 speeds with a CAS 2 latency. You'll be pleased to hear that Corsair have upped the ante once more with the release of their XMS3500 modules, capable of running at DDR433 speeds with a CAS latency of 2.

Couple the FSB bottleneck seen on AMD Athlon processors with the fact that DDR333 is the only officially supported memory standard for current motherboards (DDR400 support is currently unofficial), and it is quite easy to question Corsair's motives behind releasing memory spec'ed at DDR433. However, Corsair have stated on countless occasions that they are not directing their XMS modules at users who are running their PC at stock speeds. Rather, they are marketing it towards overclockers who are capable of pushing their FSB speeds high

enough to make use of the extra memory bandwidth.

Using an unlocked AMD AthlonXP 2200+ processor, the module was able to run flawlessly at its rated speed of 433MHz with CAS 2 latency timings. In fact, the CPU dropped out way before the memory did, as the processor's multiplier had to be lowered in order to run the FSB at this speed without causing instability.

Furthermore, as you can see from the performance graphs, the increased FSB and memory bus led to a handy performance increase, simply as a result of adjusting a few settings in the BIOS.

The bottom line is, if you are an enthusiast wanting to completely remove the memory bottleneck from your overclocking attempts, Corsair's XMS3500 is no disappointment. However, due to its rather high price, if you are not intending on overclocking you will most likely find that a cheaper module from Kingmax or Crucial would more than suffice.

Asher Moses



Corsair XMS3500

For enthusiasts wanting to remove the memory bottleneck from their overclocking attempts

85

Western Digital WD2000BB

■ Price: \$670 ■ Distributor: Achieva ■ URL: www.achieva.com.au ■ Phone: 02 9742 3288

As you've probably noticed, as far as PCPP Tech goes hard drive reviews are few and far between. This is because; for the most part they've remained relatively unchanged for a number of years now and don't differ much between brands. However, every now and then a drive comes along that we feel deserves special mention, and this is one of those cases.

The drive in question happens to be the latest addition to Western Digital's Caviar range, the WD2000BB which features an ATA100 transfer rate and a whopping 200GB of hard disk space. That's right folks, 204800MB worth of 1's and 0's, which, in layman terms means the drive is capable of storing up to 51200 4MB MP3 files, around 341 600MB games and 419430 500KB nude images of Carmen Electra.

For the tech-minded gamers among us, in order to achieve such a high capacity, WD have spread the 200GB across three 66GB platters. Furthermore, the drive features an 8.9ms seek time, a spindle speed of 7200RPM and a 2MB buffer - which is around the standard for most modern HDD.

If you've been keeping up-to-date on recent tech news, chances are you would have already heard that Western Digital, Maxtor and Seagate are reducing their HDD warranty

period from three years to just one year. Although Western Digital drives have always been known for their reliability, this issue is certainly worth taking note of for those that value peace of mind.

Moving on to performance, the WD2000BB performed on par, if not better than other ATA100 drives we've tested in the past. It produced a score of 31MB/sec in ZD's High-End Disk WinMark 99, a HDTach write speed score of 30MB/sec and a HDTach read speed of 52MB/sec.

Overall, if you're looking at purchasing a new hard drive and require the greatest capacity on the market, you won't be disappointed with the Western Digital WD2000BB. However, its meager one year warranty period and high price of around \$670 may keep it slightly out of reach for some users.

Asher Moses



Quick Specs

Rotational Speed: 7,200 RPM
Buffer Size: 2 MB
Buffer To Disk: 736.0 Mbits/s (Max)
Read Seek Time (Average): 8.9 ms
Average Latency: 4.2 ms (nominal)
Mode 5 Ultra ATA: 100.0 MB/s
Mode 4 Ultra ATA: 66.6 MB/s
Mode 2 Ultra ATA: 33.3 MB/s
Mode 4 PIO: 16.6 MB/s
Mode 2 multi-word DMA: 16.6 MB/s

WD2000BB

Reasonable performance, somewhat let down by a high price and meager warranty period

87

PC DRIVING 101

One of the great joys of being a PC owner is the vast array of gaming peripherals available to us. Besides the joystick, the next "required" controller would have to be the steering wheel and once you've used one, there's no turning back. [bold on] George Soropos [bold off], driving game connoisseur and drinker of the cup of knowledge concerning circular controllers pits six current wheels against each other.

Wingman MOMO



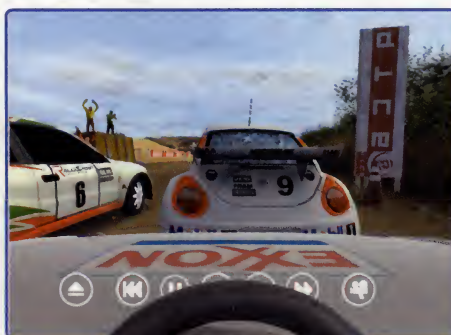
Logitech have a fine tradition of making great controllers for the PC and their previous model MOMO wheel broke new ground in terms of refinement, finish and quality. However it also broke new ground in terms of price and couldn't really find a home in the marketplace. The new model MOMO changes all that by retailing at a much more reasonable price without sacrificing any quality. Obviously the finish isn't the same, no more Harp Seal hide stretched over the wheel assembly or 24k Gold wing nuts; however in the noble tradition of past Logitech products this is still the most aesthetically pleasing wheel on the list, and feels great in the hands.

The pedal assembly is also exceptional as it includes a rotating carpet biter that sinks its teeth into your shag-pile and keeps everything in place - even through violent braking manoeuvres. The springing on the pedals is a little too soft for my taste, but that's a personal matter and you should test one yourself to see if it suits your driving style. The MOMO's feedback effects are the best of the bunch with finer movement and a smoother feel than the other two wheels. Setting up the wheel is also very easy and the software package presents no problems whatsoever, however there is no force test mode in the wheel properties dialogue. The MOMO is the best of the FF bunch due to its practical pedal design, good FF and reasonable price. Southpaws will also be happy to know that the gear shift can be moved to either side of the wheel.

Price: \$249
Distributor: Logitech
URL: www.logitech.com.au
Phone: 08 8234 0499

93

Thrustmaster Force GT



Thrustmaster had a near death experience after releasing a few rather dubious products a few years back, one of which was their first attempt at a force feedback wheel. Luckily for their employees they have resurrected their fortunes by returning to form and developing products like this one. At \$199 suggested retail the Force GT is easily the cheapest of the three FF wheels reviewed, but doesn't really suffer as a result. In fact it is the Microsoft wheel which feels the cheapest, but more on that later.

The GT offers a unique mix of buttons and console style D-Pad controls suggesting an unmentionable compatibility with the PS2 (unmentionable as companies have to pay Sony to do so). The pedal assembly is solid, boasts stiffer springing on the brake than the accelerator and stays in place without too much concentration on the part of the user. The wheel itself is rubberised for a nice grip and feel and setting up the wheel is a breeze with the only possible problem being with the leads. Another half meter would have been useful. The Force Feedback effects are similar to the ageing and expensive Microsoft unit making the Force GT a great buy in this category in terms of price and performance.

Price: \$199
Distributor: Guillemot
URL: www.guillemot.com.au
Phone: 02 8303 1818

85

Microsoft Force Feedback Pro



Microsoft was first off the starting blocks when they released their FF wheel to an adoring public five years ago.

Unfortunately they've been sitting on their hands ever since and are now the definite runners up in this competition. The Microsoft wheel is by far the most expensive of the three reviewed here, but at the same time offers the cheapest finish and overall feel.

The hard plastic wheel is now dated and quite unpleasant to use when you are used to the soft rubber of the other models. The tiny 'paddles' behind the wheel are also rather lacking when compared to the easier to use versions on the Thrustmaster and Logitech wheels. Microsoft's hardware department has been busy making gadgets for the Xbox and have dropped the ball quite dramatically in this market. The Microsoft wheel also suffers from having the poorest pedal assembly of the three machines, with too little weight to hold them in place. The software package is very good but fails to make up for the wheel's other comparative failings.

Price: \$279
Distributor: Techbuy
URL: www.techbuy.com.au
Phone: 02 9648 1818

72

Three straight and three Force-Feedback wheels go head-to-head Your driving instructor is **George Soropos**

Thrustmaster Modena Pro 360



Wingman Formula Gt



Saitek R80 Sports Wheel



This is the first of the non-force wheels in this roundup and the second version of the wheel that saved Thrustmaster from certain oblivion. It is a superb piece of work with a quality finish, easy to use clamps, lots of buttons and a dual gear mechanism which allows you to use the paddles behind the wheel or a stick shifter to the right. Another great feature is the extra accelerator/brake paddles for times when using the pedals isn't quite practical or desirable.

The wheel is sprung with a good amount of tension, as are the pedals. However the one problem with the wheel concerns the angle of the pedal mounts. With the pedals standing almost vertically from the pedal base, applying pressure to them directs force horizontally to the rear rather than vertically downwards. The effect of this is to push the whole pedal assembly back away from you. This can be overcome with foot technique and/or a slight modification to the pedal base. Or you can just use the paddles behind the wheel.

Price: \$129
Distributor: Guillemot
URL: www.guillemot.com.au
Phone: 02 8303 1818

91



The original Formula GT was a work of art and still one of the best non-FF wheels ever made.

Unfortunately it doesn't work with Windows XP and is too expensive to manufacture these days anyway. With its steel construction and long lasting build quality and in response to an increasingly more difficult market, Logitech lowered the bar in their non-FF category with the release of the Formula GT.

Don't get us wrong, for the price this is a good buy. The wheel is extremely easy to set up, with two screw-down clamps holding it in place. The wheel shape sits nicely in the hand, though it is of a hard plastic construction. The springing on the pedals is a bit too soft, but this is a personal matter and you should try it for yourself if possible. Like all the wheels reviewed here the leads are too short, why does every wheel designer out there think gamers have desktop PCs that actually live on the desktop? The Formula GT is a four button/2 paddle design and weighs less than a naked super model.

Price: \$99
Distributor: Logitech
URL: www.logitech.com.au
Phone: 08 8234 0499

83



The R80 is the only non-USB wheel on the list and is designed for older machines, or older operating systems, and those on a budget. The wheel boasts an extremely small footprint and is great for those with little desk space, or even for sneaking in to work for some covert racing sessions.

The R80 has a no-pedal design with acceleration and braking functions handled by paddles behind the wheel. This of course means that you can't use the paddles for changing gears but for \$57.75 you can't expect the world. The R80 would make a great gift for a younger gamer who can't reach foot pedals and doesn't need to be distracted by too many controls.

Price: \$57.75
Distributor: Techbuy
URL: www.techbuy.com.au
Phone: 02 9648 1818

76

THE BEAST

THE MOST POWERFUL GAMING PC GOOD MONEY CAN BUY

One of the nice constants in the world of hardware is that all items are in a state of depreciation. This we can use to our advantage, especially when building a "beastie". Not only is the newly updated Beastie the fastest it has ever been but is also highly affordable. With a large number of modern games requiring 2Ghz+ systems the beastie deserves your attention more than ever.

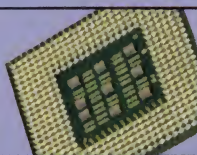


CPU, MEMORY AND MOTHERBOARD

Intel Pentium 4 3.06Ghz (With Hyper Threading)

By doubling the number of controllers inside the chip, the P43.06Ghz can process two threads in hardware at the same time. The coolest thing is that the CPU usage now shows two charts, just like in Symmetric multiprocessor systems.

\$1456 www.achieva.com.au (02) 9742 3288



Intel D850EMD2 (850e chipset)

Hyper-Threading processor ready, this is the board you're you'll need to use the Intel Pentium 4 3.06Ghz. Supports up to 2GB of RDRAM, has a 533Mhz FSB, USB/USB 2.0, ATA100, AC97 sound and a 100Mbit Ethernet controller.

\$312 www.techbuy.com.au 1 300 368 238



2GB RD-RAM 1066Mhz

You could buy a PC at the cost of this RAM but with 2GB you'll be moving so fast you can predict the future, and maybe make your money back.

\$2500 www.techbuy.com.au 1 300 368 238



Swiftech H202-C Water Cooling Kit

Kinda noisy yet strangely sexy in an industrial fetishistic kind of way, the H202-C cooler will cope with all your insane overclocking needs.

\$450 www.swiftnets.com



Antec TruePower 550W PSU

At 550w, this PSU can reliably power an abundance of devices inside your PC. Smooth stable output and a temperature sensor that carefully regulates fan speed.

\$195 www.gamedude.com.au (07) 3841 5144



VIDEO SYSTEM AND AUDIO

Sapphire Radeon 9700

Scoring a massive 15429 3D marks in our special feature in Issue 80, the R9700 is currently the fastest video card in the world. Completely beast worthy.

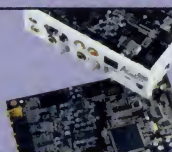
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Sony MDR-F1 Headphones

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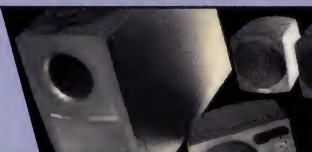
\$649 www.sony.com.au 1300 137 669



BA Digital Theatre 6000

Complete DolbyÆ Digital 5.1 sound solution including centre speaker and remote. Amazing sound, numerous speaker mounting options.

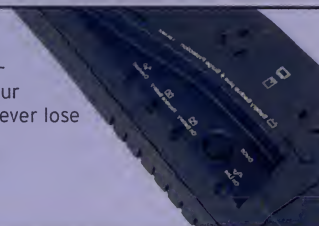
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Sound has come such a long way since the days of the humble midi only Adlib card. It was the Sound Blaster by Creative that brought wave (sampled) sound to our PCs and now, over a decade later they want to turn our systems into uber-high quality home theatre systems. Anyone got a problem with that? Thought not.

\$549 australia.creative.com (02) 9666 6500



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The best of the DVD writing crop. Fast, reliable and an essential archiving tool for The Beast.
\$656 www.ricoh.com.au 1 300 666 383



ASUS CRW-5224

Offering 52x read, 52x write and 24x re-write this is currently the fastest CDRW drive around.

\$180 www.techbuy.com.au 1 300 368 238



Seagate Cheetah 73LP 73GB HDD

This 10,000 RPM hard disk was the first to break the 50MB a second barrier. That's approximately 25 MP3s that could be written or read every second.
\$1980 www.seagate.com.au (02) 9742 3288



Panasonic 3.5" Floppy

For those times when you haven't got a boot CD, the 3.5" floppy is invaluable. Also handy for transferring files via the old "sneaker-net" method.

\$25 www.gamedude.com.au (07) 3841 5144



Adaptec 29160 SCSI

Whether you need to connect a SCSI HDD, tape backup unit or external SCSI device, Adaptec have been number one since the late eighties.

\$529 www.adaptec.com (02) 9416 0687



PHYSICALITY AND INPUT

Diamondtron 2060u 22" Monitor

Big, beautiful and with image quality so clear that after hours of playing, your eyes will serenely thank you, rather than ache unappreciatively.

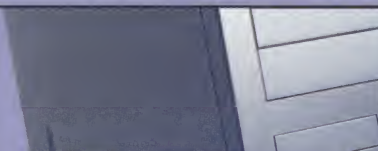
\$2099 www.mitsubishi-electric.com.au



Lian Li PC-71 ATX Aluminium Case

This aluminium case is large, spacious and delightfully smooth. You won't shred your hands on sharp edges when installing boards into this case.

\$396 www.anyware.com.au (02) 9879 5788



Logitech Cordless Freedom Optical

No cables means no tangles and looking like it belongs in the lair of a Bond villain - what more could you want for the Beast?

\$250 www.logitech.com (02) 9972 3711



Logitech Cordless Mouse MX700

At 125Hz it's 25 cycles per second faster than a standard corded mouse and the receiver station also doubles as a recharger. An accurate pointing device it's perfect for all forms of gaming. This is certainly the best mouse ever made!

\$189 www.harristechnology.com.au 1 300 139 999



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Modeled on the f-16 flight stick and throttle, the HOTAS Cougar will make you a master of flight sims.

\$600 au.thrustmaster.com (02) 8303 1818



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TOTAL BEAST VALUE:

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the beastie

AMD Athlon 2100+

Extreme power for a low price. The beastie gets faster and more affordable.
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512MB of Hyundai DDR333 RAM

The perfect amount of memory for gaming. Fast at 333MHz
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Supports DDR400 memory, Ethernet, AGP 8X, ATA133, USB 2.0
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60GB Seagate Barracuda

7200 RPM and plenty of space for full installs
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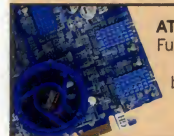
Sony 16x DVD (40x CD) ROM

Should be considered an essential item, our DVD disk is so full of demo goodness we don't want you to miss out.
\$95



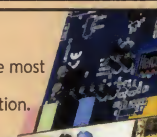
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Full DirectX 8.1 support makes this a better budget card than the G4MX440
\$200



Hercules Muse XL

Fully EAX 1 and 2 compatible this is the most affordable surround sound solution.
\$39



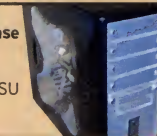
BenQ G774 17" CRT

Flat Monitor 0.25mm diagonal dot pitch. Affordable and reliable
\$295



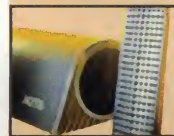
Black Millennium case

Mid size case with a clear side Perspex window and 350W PSU
\$110



TDK Tremor TS-60

Speakers Excellent bass and amazing satellite response.
\$130



total beastie value: \$1824



SETUP



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LETTER OF THE MONTH: RADEON 9700 AND AGP8X

Q Firstly, I noticed Asher rated the ATI Radeon 9700 quite highly. So too did another PC mag, but they also stated that all the Radeon 9700 units they tested failed to work in AGP8X mode when placed in five different newly released AGP8X boards, and raised some serious questions about this issue. I didn't see any mention of this problem in Asher's article - I'm just wondering if PCPP found the same problems in their testing? If this problem does exist, would it be worthwhile to fork out the extra cash for the great performance these cards offer on AGP4X boards? Or wait until the bugs are ironed out and/or nVIDIA come up with an alternative that works in AGP8X mode?

I'm also looking for two new system boxes. One is to be a gaming rig, designed to handle the latest and greatest games without a hitch, whilst the other will be handling the vast majority of current games with ease. This way, we can enjoy multiplayer with games we previously haven't been able to play via our network. I need to save a bit of money, too. I've read articles that the slightly old but very inexpensive Gigabyte GA-7DX+ and GA-7DXE motherboards are very good performers so I'm leaning heavily towards these models. Last, I'm thinking of saving a dollar or two on the cases, but cooling is of concern to me here. What type of cooling would you consider adequate for an AthlonXP 2000+ and AthlonXP 1800+ based systems?

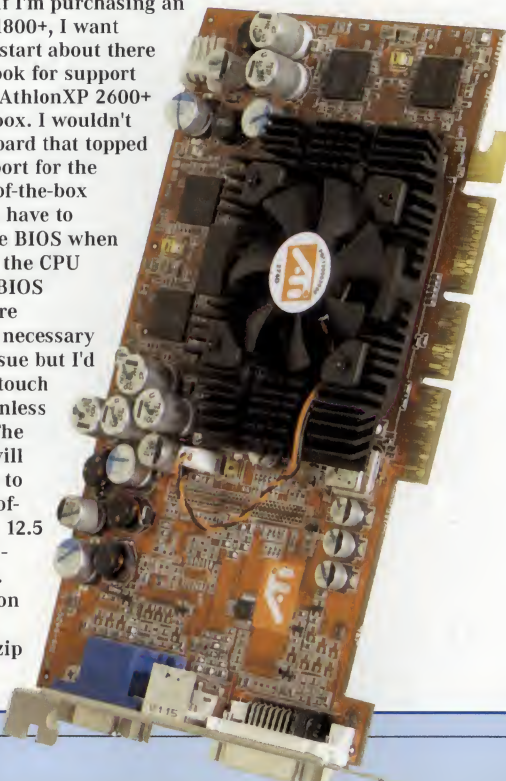
AReyeP

A SPECIAL RESPONSE FROM ASHER MOSES: As shown in our AGP8X vs AGP4X tests, we had no trouble running the card under AGP8X. Furthermore, we tested our particular card flawlessly on both SiS648-based motherboards as well as VIA KT400-based motherboards. From what we've been told by a fairly reliable source, the reason why some users have been unable to get their R9700 cards running at AGP8X is because early board releases

still had a number of bugs that were thankfully ironed out in future releases. However, unfortunately, some of these early revision boards managed to hit the market. That said, it is very unlikely that you will receive a card that is unable to run at AGP8X, and even if you do, you will be able to get a replacement under warranty. In regards to your second question, again, as you saw from the AGP8X vs AGP4X graphs in current games, due to the fact that the AGP bus is not being saturated with data, the extra bandwidth has not yet been taken advantage of. Thus, an AGP4X motherboard should prove to be more than sufficient for at least the next 6 months. Back to you, Stu.

Thanks Asher. As for motherboard issue, my rule of thumb is to list the features required and start matching them to available boards. There's no point paying for something that you're not going to use. I also look for a board that has support for a chosen CPU at the lower end of the range. So, if I'm purchasing an AthlonXP 1800+, I want support to start about there and then look for support up to, say, AthlonXP 2600+ out-of-the-box. I wouldn't look at a board that topped out at support for the 1800+ out-of-the-box because I'd have to upgrade the BIOS when I upgraded the CPU later. Yes, BIOS upgrades are sometimes necessary to fix an issue but I'd rather not touch the BIOS unless I have to. The GA-7DX+ will support up to 2000+ out-of-the-box (or 12.5 x 133 MHz - 1663 MHz). BIOS version F7a (Beta) (7dyp_f7a.zip dated

August 16, 2002) was a fix for correct recognition of the AthlonXP 2100+, 2200+ and 2600+ CPUs. There's some headroom if you upgrade the BIOS later. It supports AGP4X but I'm not sure if it's actually AGP 2.0 compliant; it does, however, support 1.5V/1.6V/1.8V AGP Pro voltages. What about a GA-7VXP Socket A, AGP8X, USB 2.0, DDR3200, 6CH Audio, ATA133 Raid, IEEE-1394 for \$255? Or the GA-7VA for about \$180? In regard to the cooling dilemma, you may have noticed, earlier in this issue, that I have a one-page lament about the attention to detail about cooling in general. Don't skimp on the cases because a cheap case will end up costing near that of a quality unit and still be nowhere near as efficient. If you splurge now on a good case you can keep it for life (well, until they change the form factor again). Read my column and consider the guidance and the ideas I've scribbled out.



NETWORK AT WORK

Q We have a small network for our business with a Firewall and so on. On Friday nights we have a get-together and drinks and then try to play some Internet Games which we've installed. We're having a shocking time getting onto the Net, so what's happening and what do we do? We have WinXP Pro installed on some fast PCs.

Sharker

A Simply stated, your administrator must configure the system to allow the games to pass information through the proxy server or firewall. Although most stuff is a no-brainer for them, the following TCP ports on the firewall must be open: 28800 through 28809, to allow gaming over the Internet from your business site.



Console gamers may have a point...

BF1942

Q After I finished reading the sweet reviews in your lovely mag, I brought myself a copy of BF1942. After I finished installing the game, I clicked on bf1942.exe to run the game but got these two error messages and can't run the game:

Message 1: C:\Program Files\EA Games\Battlefield 1942\BF1942.exe A device attached to the system is not functioning

Message 2: Error Starting Program The BF1942.EXE file is linked to the missing export IMM32.DLL:ImmDisableIME

David Zhu

A EA Games have released some patches to overcome some

operating systems glitches, just like this one. Get yourself over to ea.com and check out the latest news. Retail Patch 1.1 is available now and 1.2 should be out soon. That said, do you have the hardware to run this hungry game? Do you have the latest graphics adaptor, chipset or soundcard drivers?

FPS!

Q It's one of the biggest needs when playing games these days, Frames Per Second. I'll cut straight to the chase: after buying BF1942 I found out that my GeForce2 wasn't really powerful enough and I wondered what would be the RECOMMENDED system for it. Soon enough you guys made a review of it and I was shocked to find it needed like State of the Art stuff, which really not many of us can afford. So would you have any tips for improving your Frame Rates for such games as CS, Tribes 2, BF1942 and other games?

Comm@ndo



FPS trouble? It could be worse

A Tips for Frame Rates? With a GeForce2 there'll be little noticeable difference but Jere has

While some warez groups may seem reliable, there are groups who take these CD images and insert malicious code into them.

talked about various settings in his Tech Reviews so read those again and ponder. Instead of some tweaking, I recommend a little hardware upgrade. I have seen BF1942 on a Win98SE P3-933 with a 64MB MX400 and 512MB of CL3 PC133 RAM running off an ATA100 disk; it looked pretty darn good but of course it could have been better. I then ran BF1942 using Win98SE on a Celeron 1.3 with a 64MB MX440

with 320 MB of CL3 PC133 RAM, again running off an ATA100 disk; it looked great. The point I'm making is that it's often a combination of components, fast Celeron plus MX440 just about equals a PIII plus MX400, that make a difference and that these components have to be mixed or matched. If you decide on a new graphics adaptor then you'll probably need an AGP2.0 2X/4X compliant motherboard. If you want to upgun your 0.18 micron Celeron 1.0 to a Celeron 1.4 (Tualatin 0.13micron processor range) then you'll need a B-Step motherboard (like the Intel 815EP) because your current board tops out at a 0.18micron Celeron 1.1. Faster, 400MHz bus speed Celerons require a 478 pin P4 board. Many PC vendors have 'upgrade' specials. For \$500 you may be able to get a Celeron 1.7, matching board and an MX440. Currently a Celeron 2.0 Socket 478 is \$235, matching board is about \$200 and an MX440 is around \$150 - less for a RADEON 9000 PRO. On the other hand, a boxed AMD AthlonXP 1700+ can be had for \$175 on an EPoX 8K3A+ for \$200 - not bad at all.

GAME CRASH EXIT

Q A while ago I purchased a P4-1.5, 256MB of RAM and a TNT2 M64. Every thing was fine until I started games that required more power. The games would run fine, top speed in fact. But every time I try to exit the games (Deus Ex, Max Payne, Civ III) the PC would crash. What can I do?

Rhys Morgan

A It's difficult to decide what to say without knowing your motherboard brand, model and BIOS version, operating system, IE and DirectX versions (IE 5 and 6 update a LOT of files for Win9x as does DirectX

8.x). Depending on what they are, I might be able to say "bingo!" Then again, read on: I ran Max Payne on an M64 graphics adaptor for a while without crashes, it wasn't fun but it did force an upgrade to an MX400 card. My best guess is that the M64 can't handle the exit mode from the games back to Windows for some reason (the manner in which the game passes control back to Windows). Maybe because you don't

have the latest nVIDIA reference drivers; maybe some other driver is horribly out of date or corrupt (DirectX Diagnostics is often good for this). I remember that some ABIT and Gigabyte boards did not like coming out of a game to find the PC in power-saving mode, even though it wasn't actually running at the time; a BIOS update is available for specific boards. In fact many boards have ACPI (Advanced Configuration and Power Interface) problems in their initial BIOS so check for all driver updates including the BIOS (Gigabyte have a raft of 'em between Jul 01 and Feb 02 for the 694X chipset). About the only components that don't need a driver are the disks and CPU, although the motherboard chipset drivers handle a lot of stuff to do with them.

SLOW LAPTOP

Q I own a P3-750, 64MB RAM, Acer laptop Travelmate 526TE. I was given this machine as a gift for my 13th birthday, giving me a window into the world that is personal computing. My friend showed me his P4-1.7, GeForce4 machine and I noted he had a larger screen resolution than God would have, I asked myself, "is my laptop performing right?". To the point, I was wondering if laptop hardware cost (much) more than normal computer hardware. I am thinking of upgrading the RAM and video card but I can't find any laptop cards except off dodgy foreign sites. I also find that, as time progresses, I'm left in the proverbial PC game dust. And to add to it, my computer is extremely slow and always has been, no matter how many applications I'm running.

Gareth Williams

A If I'm right the 526TE was standard with a P3 750, 64MB SDRAM, 10GB disk, a 13.3" TFT Panel, an ATI Rage Mobility-M with 8MB SDRAM, a 24X CD-ROM, a 56Kbps Modem, Ni-Mh Battery and WinMe; this was not a bad system at the time. Your laptop is slow, as you realise, because of the small amount of RAM and the video card has only 8MB of RAM when at least 16MB is required for 2D and 32MB for 3D. Doubling the RAM would produce a noticeable difference. For a start, checkout discount.com.au for laptop parts and laptop RAM is nearly always advertised in most Australian PC magazines. No laptop stuff is cheap but it does give you a dilemma. Do you save money for a desktop and suffer gaming

purgatory or spend money on the laptop and hope a desktop falls from the heavens (aka Mum and Dad)? I suspect that you got this computer for school work, too, rather than fragg'n' friends, hehe, but that never stopped me! Step #2 is to get a bargain desktop system for your 14th so you can produce better school 'assignments'.

WAREZ .ISO

"Help!" "My game won't run!" and excellent, awe inspiring variations on this theme is my median question from readers. Too often, when I inquire about more specifics by private email, I am informed that it is actually a "cracked .ISO" causing the problem (usually downloaded in .RAR or .ACE format). If you download game images from the Internet, run them from DAEMON Tools or burn them to disc and get a problem there's little to do but buy the original and play from there. For a start, without knowing the replication tool used in the first instance and it's settings, it's impossible to know how to burn or emulate it properly from the get-go. In any event, warez (pronounced "wares") is responsible for the high price of games these days as well as the costs of copy protection schemes like SecuROM and SafeDisc. And bare this in mind, while some warez groups may seem 'reliable', I know that there are groups who take these same images and insert malicious code into them. The next time you lose a disk to a Partheon image... just remember, I told you so.



MEDAL OF HONOR FREAKOUT

Q My system has an onboard ProSavage KL 133 which spits the dummy if I even mention Medal of Honour allied assault in the same room. I started by loading the demo but when it goes all the way to choosing a mission it goes to dial up connection screen with the medal of honour in the bottom of the screen. When you press the tab it's loading but the screen flashes black white black white then clicks out. I tried a friend's copy of the full game but the same happens. Is this game worth the hassle? what do I do?

Tony

```
*** STOP: 0x0000000A (0x00000000,0x00000002,0x00000000,0038c240)
IRQL_NOT_LESS_OR_EQUAL*** Address 8038c240 has base at 8038c000 - Ntfs.SYS

CPUID:Genuine Intel 6.3.3 irql:1f SYSVER 0x00000565

Dll Base DateStamp - Name
80100000 336546bf - ntoskrnl.exe
80000100 334d3a53 - atapi.sys
802aa000 33013e6b - epst.mpd
802b9000 336015af - CLAS22.SYS
802bd000 33d844be - Sitwid.sys
f9318000 31ac6c8d - Floppy.SYS
f94e8000 31ed8e8b - KSecDD.SYS
f9358000 335bc82a - i804prt.sys
80010000 33247f88 - hal.dll
80007000 33248043 - SCSIPORT.SYS
802b5000 336016a2 - Disk.sys
8038c000 335d6377 - Ntfs.sys
803e4000 33d84553 - NTice.sys
f95c9000 31ec6c99 - Null.SYS
f95ca000 335e0cfc - Beep.SYS
f9474000 3324806f - mouclass.sys
```

This almost always means something bad has happened



A Easy fixed. In the beginning, one had to turn off the Internet dialup dialogue, but now a little patch from EA Games will fix it. Medal of Honor Allied Assault(tm) UK and US 1.11 Patch Highlights:

1. Stand-alone game server that runs without CD
2. Fix for the dial-up networking problem for single-player
3. Fix for in-game server browser auto-refreshing
4. Fixed lag when a bomb was planted and the entire planting team was killed
5. The multiplayer dial-up connection fix

ANCIENT MACHINE

Q I have a P2-266 MMX, running on Win98SE, a PCI Sound Card, S3 Trio graphics adaptor and 64MB of RAM. I have installed a few games, like Colin McRae Rally (Demo), Need For Speed 3 and 4, Worms Armageddon... and heaps more, none of them seem to run! They all install, most of them meet the minimum requirements, but when I go to run them, the screen turns blank then just goes back to Windows, with all the folders open! Help!

Scott Anceschi

A No offence but when does your PC have to be back at the Smithsonian? Do they loan this old stuff out now? Do you believe in fairies? Then you'd believe the minimum requirements printed on the game box. Yes the minimums work, er... most of the time, but you have to have the latest drivers for your system components. Doing that and adding another 64MB stick of Fast Page RAM may help but so will buying a new PC.



Scott's PC, shown not running Q3A

AGP 2X/4X

Q I recently bought a GeForce4 MX440 (ASUS V8170 DDR) and I was really excited... but then I couldn't play any of my games!! I used the ASUS driver that came with the card then I tried the latest nVIDIA drivers and it still doesn't work. Only Diablo2 LoD and The Sims work. I tried playing SOF then after loading it would freeze and make a squawk. My specs are P3 on a Gigabyte VIA 694X AGPset Socket 370 MoBo running WinXP with 256MB RAM. Please help I

want to play games and try your demos!

Eric

A The Apollo Pro133A supports 2X/4X AGP 1.0 (4X with fast writes) but not all motherboard vendors have built in the AGP 2.0 support which is the 'real' 4X mode. Most brand MX440 cards need an AGP 2.0 compliant board rather than the 'hybrid' offered by most big name manufacturers. If AGP 2.0 support is provided on a board, it is clearly stated on the vendor's website as it is a real selling point. Only a few Apollo Pro133A chipset boards ever became AGP 2.0 compliant and I think you're up for a new board anyway, eh?

OVERCLOCKER

Q I get poor/unstable video when I overclock. What am I doing wrong?

Buster

A It depends on what setting exactly (PCI or AGP speeds) you're playing with and in what particular motherboard. Successful overclocking is a combination of appropriate and sometimes conservative settings. Importantly, an 'overclocker's board', should guarantee that the PCI bus is run somewhat within spec (33MHz) so as not to stress any PCI device too much if running the Front Side Bus past its official rating. A featured motherboard automatically selects, with an option for manual override, the appropriate AGP bus speed, avoiding trouble when enabling higher FSB speeds. An essential feature, too, is the ability to set the DRAM clock, the speed at which RAM is operated. This is derived from a combination of FSB and PCI bus speeds. It might be set to: equal to the FSB speed, equal to the FSB speed minus the PCI bus speed or equal to the FSB speed plus the PCI bus speed. In the case of a 100MHz FSB/33MHz PCI setting this means that the SDRAMs can be run at 100, 66, or 133 MHz. Soyo boards, for example, feature voltage adjustments by a percentage rather than arithmetic

increments. Some prefer to make an x% change over the ability to set +/- of say, .01 volts. So, you just can't wind up the FSB from 133MHz to 150MHz without first making sure that the AGP bus isn't stressing out over 66MHz.

TV-OUT

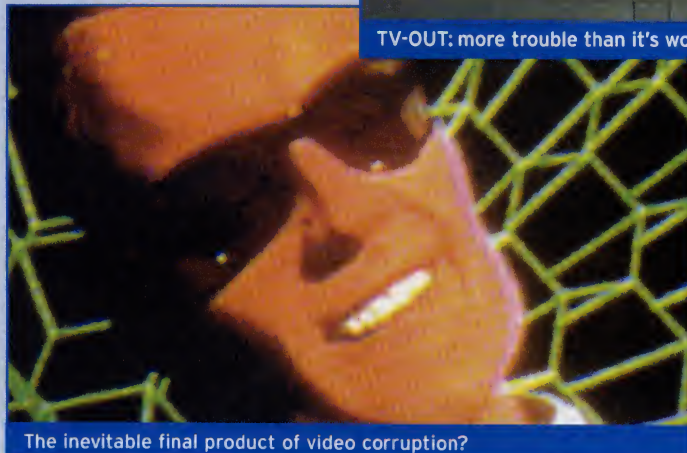
Q I have been a gamer for more than 20 years (if you include arcade machines) and I have never seen articles on or been urged to try "TV Out" gaming. I have a GeForce2 MX with TV Out and an 80cm TV, but how do I go about connecting it all up? What kind of resolution and colour depth would I get? And what other concerns, benefits or curses can I expect? Do any laptops with DVD today feature TV-Out or is this kind of use out of their league?

Wayne Scott

A Here's one site that you'll need to visit if you decide to go ahead: www.digit-life.com/articles2/gf4/geforce4-tv-out.html. TV-Out is great for watching DVD movies on a big screen but gaming experiences can be indifferent if not frustrating. The GeForce2 MX chip contains two separate and independent video tracks, CRTCs (Cathode Ray Tube Controller), one transferring data to the integrated RAMDAC (Random Access Memory Digital to Analog Converter) and the other to the external DAC (a TV encoder is used as such in the video card supporting TV-Out). Thanks to such architecture, independent signals can be formed on both outputs of the GeForce2 MX video card equipped with TV-Out.



TV-OUT: more trouble than it's worth?



The inevitable final product of video corruption?

For example, a first monitor can display an image in 1280x960 at 85Hz and a second one (or a TV screen) can give a picture in 800x600 at 50Hz. Please note that choosing an nVIDIA driver for this is often not a just a simple matter!

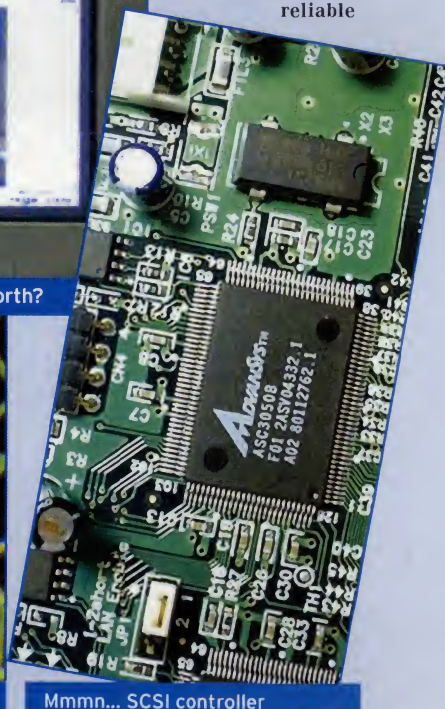
Depending on your learning journey at digit-life.com you will only ever need one version from a selection of many.

SCSI CHOICES

Q I was wondering about disk speeds vs. storage capacity. I want a nice, fast drive that's BIG, a 10,000rpm SCSI drive is nice and fast but can only hold 73GB for around \$2000 but for the same price I could buy a RAID card and four 7200rpm Western Digital 120GB disks with 8MB buffers giving me a total of 480GB if set up as RAID 0 (think that's the right one, the one that spits things across all drives) wouldn't this be faster than a SCSI drive? what would be the advantage and/or disadvantages of this kind of setup?

Adrian Lusk

A If you just want stupidly fast storage and retrieval then a 15,000 RPM SCSI is your choice, a Seagate Cheetah for example. Suffice to say that SCSI drives seem to come in odd sizes because of the 'extra trickery' contained on normal sized platters, is that low-tech enough Ed? (Sorry, I was busy pouring my brain back in my ears - Ed). They are also expensive for the same reasons. They are generally offered in smaller sizes because the cost of a 120GB SCSI disk would feed New Zealand for a month. If your data is not mission critical then a big, fast IDE drive is the go. The Western Digital 80/100/120GB drives with an 8MB buffer (that's buffer, not cache) are fast, robust and reliable



Mmm... SCSI controller

and while contain IDE provide near-SCSI speed performance. The LOTM in PCPP#81 talked about RAID in general and highlighted some issues about configuration. DAS BIOS

DAS BIOS

Q I am one of those people who don't know enough about BIOS settings to risk getting myself in trouble through tweaking them. Perhaps a small tech article explaining the ins and outs of how the BIOS works, future directions improvements and a tweaking guide would be quite handy for a lot of people.

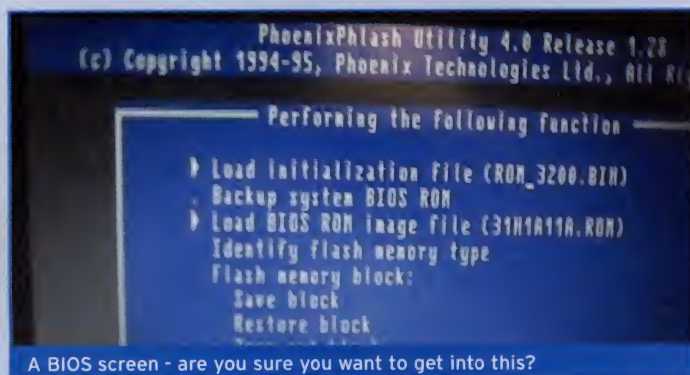
Veefy

YES! A great idea. A BIOS update can literally make a PC go 15% better. It wouldn't need to be in-depth as BIOS are different but largely the same. Things like BIOS flashing, RAM timing, temperature and vcore voltage and AGP slot speed. And of course the no-liability spiel.

Razza

A This can be done but how to protect the idiot? As soon as some tweak is mentioned, people are off doing it even though they may have hardware that does not support the feature. Given time, Jere or one of the Contributors will craft something suitable. (Yes, I do browse the Forums!)

No offense but when does your PC have to be back at the Smithsonian? Do they loan this old stuff out now? Do you believe in fairies?



contend that Win9x is happiest with 512MB of RAM (but no more given known issues!); this

amount should be considered the minimum for WinXP.

Word on the Internet is that between 700MB and 800MB of RAM for XP is the best compromise for cost vs performance. As for Registered ECC RAM, don't worry, don't buy it, forget it or if you really want to know, Google it.

RAM

Q I am one of those people who don't know enough about BIOS settings to risk getting myself in trouble through tweaking them. Perhaps a small tech article explaining the ins and outs of how the BIOS works, future directions improvements and a tweaking guide would be quite handy for a lot of people.

Bryan

A Generally speaking, installed RAM sticks can differ in brand but speed, CL and type (DDR vs single rate) must be the same if problems are to be avoided. If the Legend stick turns out to be PC2100 CL2 DDR SDRAM then you can use it as well. ASUS will have a RAM recommendation on their website somewhere. Off the top of my head, I recall that they prefer Samsung sticks with either one or two modules - three is not recommended by most board vendors despite many units having three slots - the more RAM slots that are filled then, generally speaking, the more instability. Setting CL to 2, when one stick is a 3, is inviting freezes and lockups - match the CL and set it appropriately in the BIOS. Running PC2100 with PC2700 will notch all RAM back to the slowest speed - match the speeds for best performance. I



I'M NOT BLUFFING!

100,000 HITS ON
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BYE BYE XAERO



www.pcpowerplay.com.au
(how can you risk a cute little kitten's life like this?)

THE ORACLE

WRITE TO THE ORACLE AT:

The Oracle
PC Powerplay
78 Renwick St
Redfern
NSW 2016

oracle@pcpowerplay.com.au

Chump of the Month Award must go to the reader who didn't see the bleeding obvious in a tutorial. Ouch. How can you futz a tutorial? Doggedly I help you lot out, chumps included. Hey, no discrimination here! To misquote one H.J. Simpson, some answers are indeed worthy of a Doe! Oh deer. That was one doggone mangy pun.



Black & White

Q Hey, I know this sounds sarcastic but could you help me out on the tutorial of Black and White? You know right after you activate the gold scroll or whatever and this girl would ask you to find this rock or some sort. Then she would tell you to place it in some sort of place. Where's this freakin place that you need to place it on?

Steven House
e-mail

A The Oracle pities you. Truly. Not only did you miss a very obvious under your nose piece of information, but have resigned yourself to public humiliation in a national magazine. Sable, the creature trainer, kindly explains that you need to collect 3 special rocks and place them on a pedestal. Yep, that box thing in front of the big gates, right next to Sable that has the sparkly scroll above it is the pedestal. At any time you could've clicked on that scroll for info. Oh dear, oh dear. And you call yourself a god? Hmm, Black and White, the game of good god/evil god... but where's the game for stupid god?

Aliens Vs. Predator 2

Q After reading AVP2 review in issue 69 I went out and got the game. I finished in normal with the marine and alien but in stuck in the predator mission in level "unexpected allies" where you have to swap your mask with the one on the table. I can't pick it up yet I can pickup the net gun next to it. I've pressed the use keys and nearly every other key on the keyboard and I installed the games latest patch that didn't help. I enabled cheats, uninstalled game and put it back on again but it's no good. Please help it's driving me nuts.

Martin Fletcher,
e-mail

A As you've just been ambushed you have no weapons or mask, so start looking for some. Go left, use switch. Use your charge emitter to shock the circuit which explodes, opening the lift. Use lift. Go down hallway, kill people through door on the left. Through there is a locked door with guard and an unlocked door on the left. Open the unlocked door and go down the ladder. Use the switches on the way down to open different shutters. Kill the soldiers at the bottom. Then go left down hall, left again,

turn corner and open door. Turn left again, and jump onto a catwalk above a room with a big window. To the right are some pipes and a niche to jump into. Destroy the electrical box and go through the door that's underneath. Go left; kill the two guards at end of hall and open door. In here, there's a



Community announcement:

The Oracle has witnessed that cheating online in Red Alert 2 is definitely possible. When waiting for a game to start, if you see the message "chat server error" scrolling repeatedly in the chat window, don't believe it. Someone's running a background program that allows them to cheat. And No, The Oracle will not tell you how to do this, as cheating online ruins it for everyone.

scientist and remote bombs on a push cart. Use then hack the switch by the Wayland Yutani logo to open the door on the right, and go through. Kill the 2 guards on the right, and go through their door. Here's another scientist plus mask and net gun. (Cheer!) Grab both. Go back out down the hall to your left. Kill the guard here. Go to the room with the ladder and climb up ladder. At the top you'll see a big red pipe. Fall onto this and part 1 of mission is done.

CODE



The Sum of All Fears

During game play press Enter to bring up the console and then enter the following code:
SUPERMAN invulnerable
TEAMSUPERMAN team
INVULNERABILITY
SHADOW invisible
AMMO unlimited ammo
REFILL all inventory items
RUN faster run

Unreal Tournament 2003 release

Press ~ to bring up the console and type in:
Amphibious Breathe underwater
KillViewedActor Kills whichever actor the camera is centered on
PlayersOnly Makes the level a player only level

SkipMatch In single player wins match and advances in the ladder

Teleport Teleports you to where crosshair points
ViewBot Cycles the camera through bots
ViewFlag You access the flags point of view
To unlock all skins
Using Notepad, edit the file UT2003.ini (Located in

your game system directory) and add the following lines to the end:
[XInterface.Tab_PlayerSettings]
bUnlocked=True
bTDMUnlocked=True
bDOMUnlocked=True
bCTFUnlocked=True
bBRUnlocked=True

Jedi Knight II - Kejim Base

I am stuck on level 2 (Kejim Base). I have walked across that tiny ledge on the side in that icy bit, jumped up onto that high bridge, found those secrets, killed that flying machine gun or whatever it's called and shot the guys and all that but now I am stuck. PLEASE HELP ME!!!!!!!!!!!!!!

Michael Crackman,
e-mail

If you managed to get off that narrow ledge onto the arms of the cryogenic chamber and jump up onto the ledge running on the outside of the chamber, how come you didn't see where to go from there? The outside ledge leads to a catwalk with a door. Doh. Before you enter, jump across to the pipes on the left to grab the bonus. Through here is a large room with a pool of electrified water at the bottom. Kill the hover droids and go along the catwalk to the centre, snipe the troopers and Imperial who are in an office and 2 troopers below you. Take the

office will extend. Press the switch in the office, take the small lift down. Head down corridor to a security booth. In here is a switch that raises the blocks in that bonus room. Next, return to water room and walk to centre structure (on bottom level). In here is a shaft, drop down and crouch walk along it to the next room. Over by the health is a switch - 4 cryogenic canisters pop up. Next go to the red lit corridor to the 2nd security booth, hit the switch, revisit the bonus room via the nearby stairs, then return to the cryogenic room and go through the unlocked door. Troopers are here and an Imperial, plus a ceiling mounted turret to your right. The detention cells are to the right. The Imperial that guards the switch to turn off the forcefields on the cells is accessed via a lift. In the cell area there's 2 rooms with bonuses and 2 hover droids to watch out for.

Back the other way around the bend is an Imperial with a key for the locked door ahead that's a room



Frank Lloyd Wright, you crazy joker guy!



CODE

Star Wars: Galactic Battlegrounds - Clone Campaign

Hit enter and type one of the following codes:

forcebuild build faster
forcecarbon 1,000 carbon
forcefood 1,000 food
forcenova 1,000 nova crystals
forceore 1,000 food
simonsays killer ewok
forceexplore full map
tarkin destroy all enemies
forcesight removes all of the fog of war
skywalker win mission

scaryneighbour create a regular boat
forceboat invisible ship
darkside destroy individual enemy, x stands for the number of the enemy
Tantive IV control secret ship Corellian Corvette
Imperial Entanglements lets you control the Imperial Star Destroyer
That's no moon lets you control the Death Star

As for whether GTA4 is coming out soon... the Oracle peers into the crystal ball... there's a rumour that GTA4 will be online

lift in the corner down to where those 2 were. In here is a room that has bonuses on ledges plus turrets guarding them. You go here 3 times to get all the bonuses, each visit means destroying new turrets and jumping on raised blocks to get to the bonuses. Destroy turrets, then go back up the lift and go to the window, shoot at the canister to burn out a switch and a walkway to the

overlooking the cryogenic chamber. Press the switches to overload the cryogenic chambers so they'll explode and the shield regen unit in there is yours. Return to the room with the switches and go through the unlocked doorway. Ahead is a security booth and 2 wall turrets. To bypass the locked door, explode the canister and crawl through hidden duct, shooting grate to exit. You're

with an Imperial manning a big gun. Behind the gun is a switch which when pressed brings in more troopers. Have fun mowing them down. Go into the room on the left and you'll see a big machine. The switches are in an alcove and the machine will start firing lasers everywhere and cut a hole in a locked door. Duck lasers and go through. This next bit is fun. There's a locked glass door with a computer console behind it. The key is in a room that has leaking toxic

Grand Theft Auto 3 - Girls & Cars

Q Can you answer these questions: 1. Is there a fourth city in GTA3. 2. In GTA3 how do you get the girls in your car? 3. Is there a GTA4 coming out?

Peter K,

New Gisborne, Victoria

A Hey Peter, the fourth city in GTA3 and how to fly there in the Dodo plane was explained in issue 79. As for getting girls in your car, well that is indeed a worthy cause but there are 3 missions that involve this ultimate sign of studliness. Which mission? Oracle gets out the crystal ball If you're picking Misty up from the hospital, just stop next to her and she gets in. If you're picking Misty up from her flat to take her to Joey Leone's love pad, honk the horn and she'll

come out and get in the car. If Luigi asks you to take some girls to the Policeman's Ball (hey, cops need fun too), then get a car that holds 4 passengers and take 3 girls per trip. You need a minimum of 4 to pass this mission and each girl over that nets you \$500. After you drop off the first lot of girls, take a police car and use the siren to clear the traffic, thus maximising your efficiency as a chick courier (which sadly is not the same as chick magnet). As for whether GTA4 is coming out...once more the Oracle peers into the crystal ball...What's this I see? A rumour that GTA4 will be online. We here at PCPP will keep you informed as we get more news.



This club bites



Resist me in vain! I'm rich!

CODE

Need for Speed Hot Pursuit 2

Buy all cars for \$10
Use Notepad to open the cars.ini file in your <game dir>\Cars folder and make the following modification:
price=10
nfsprice=10
Change mass of the car:
Using Notepad open car.ini file located in the <game dir>\<your car> folder, for example I.E Cars/911T/Cars.ini. Change mass to a higher value, eg 100 and you will have a rocket Porsche. Before editing, you might need to uncheck read-only attribute from the ini files. Right click on the file car.ini, select Properties and remove the Read-only check. It's advised to make a backup before editing these files.



No One Lives Forever 2

Press T then enter one of the following codes:

health maximum health
armor maximum armour
maphole skips level
pos show position
skillz get skill points Levels 3-4
poltergeist invisibility
kfa obtain weapons, ammo, armour and health
mods get silencer, scope & camera zoom
god become invincible
build show version
guns get all guns
ammo maximum ammo



The Thing

For each of the following manual methods, you'll need to run "regedit" from the Run command under

the Start Button. Then hit F3 to search for the following registry key: HKEY_LOCAL_MACHINE/SOFTWARE/Computer Artworks/The Thing/1.0 To create the new string value, click Edit-> New-> String Value
Quick save
Create string value called "DoinGameLoadSave" and set to "1".
Saved game is called "TestGameName".

Cheats
Create the following new Strings and set each with a value of "1"
PlayerInvulnerable
NPCInvulnerable
FullWeaponEquip
These will activate in new game or when level change occurs.

Turn off flashlight
If using the torch crashes the game, then disabling torchlight will get around this problem.
Create a string value called "DisableProjectedTorch" and set a value of "1"



Operation Flashpoint: Resistance

Press left shift key and the following codes:
campaign unlocks any campaign missions
iwillbetheone god mode
endmission ends the current mission



Comanche 4

Enter the following names to activate the following cheat:
BigStar master code
NoLosers no enemies
SupraHeli god mode
WolfBlitz unlocks all levels



Lamborghini? Yeah right



Leet skills! Leet skills!



Attrition had thinned the ranks of Take That

gas and dead Imperials on the floor. You can grab the key without serious damage. Unlock glass door and use console to become a small droid. Cool! This little fella runs into the poisoned room, through a duct into another room where you can turn off the poison. On your return through the duct, on the right side is a switch to unlock the final secret area in the now safe room. Resume your usual ironic Kyle self and check out secret area. The next room has crystals and the last lot of storm troopers to kill before you exit into a tunnel. Enjoy the cutscenes that follow; mmmm, Mon Mothma in a mumu.

Neverwinter Nights - Snow globe quest

I'm in the wizard lab trying to find the snow globe. I released Nax who promised to give it to me but he ran off when one of those really annoying fire imp things attacked my party. Have I somehow lost the snow globe and stuffed the game?

Kerry Nelson
Thirrul, NSW

Foolish girl, you shouldn't have been so gullible and believed sleazeball Nax when he claimed to have the globe. As punishment you'll have to deal with more of those predictably vexatious fire elementals. The tower has a puzzle in the centre. You'll see four pillars; use identify to work out the



I'm heartily sick of this screenshot

CODE

Age of Wonders II

Press [CTRL] + [SHIFT] + C, then enter one of the follow cheats:

gold max gold
mana max mana
explore toggle explore the whole map
fog disable fog
research research all spells
win win scenario
freemove toggle free movement
towns view all towns in the current map
lose lose scenario
spells toggle free spells
instantprod toggle instant production
instantres toggle instant research
ai toggle AI on player
upgradehero upgrade hero
cityspy toggle spying of enemy cities
emergehero summon the hero spell



Nice day for it at least

tools at this stage. Outpost 31 is an excellent fansite for Thing info:
<http://www.outpost31.com/index2.html>

Twinsen's Odyssey: Little Big Adventure 2

I can't get the damned umbrella from the kangaroo in Twinsen's Odyssey 2. I need to give it to a japanese egg guy so he can give me the antidote for the dragon.

John Kefaloukos,
e-mail

The Thing

I have beaten The Thing and I was wondering if there are any mods because I've seen in the mag that there are different uniforms and you could hold two machine guns at once but I couldn't find any thing on the net. Is there a site with these add-ons?

No name given
e-mail

I think you might have seen original pictures before the game was released. There are indeed pictures of Blake holding two guns from earlier in production. There are no mods for the Thing - alas the developers are not planning to release mod

Japanese egg guy? How original of you to create your own version of the game! Bear in mind though the victim of this brolly snatching crime is female. But I digress: If you chase the speedy thief long enough, the little varmit will run back to the square where the pharmacy is and you can sneak up on him (in discreet mode) and snatch the brolly back. Healing Dino-Fly is not as straightforward as it first seems (it never is) and be prepared to learn how to heal him yourself by enrolling at the School of Magic.



"I think we have rats!" she said, yeah right

CODE

Deadly Dozen

Type cheatcheat to unlock the cheat mode.
Fly flying mode
godmode god mode
invis invisibility
losemission lose the current mission
ammo gives you unlimited ammo
winmission allows you to win the current mission

Tropico: Paradise Island

Hold down the control key and type one of the following codes to activate the cheat:
pesos additional \$20,000
exacto <number> set treasury amount
rapido faster construction
contento adds 10 to happiness
muerte kills selected unit
politicaidifficulty political level of difficulty
economicdifficulty economic level of difficulty

Industry Giant 2

To get \$1mil, name a train terminal or station Donald



Point that thing someplace else, paddy



You're just jealous 'cause I'm pretty!

CODE

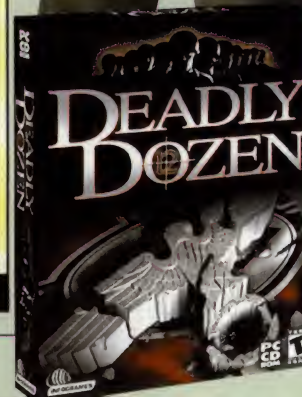
Clive Barker's Undying

Hit Tab key and type one of the following codes:

set Aeons.Patrick Health
999 999 Health
addall all weapons and all spells
flight fly
infiniteMana 1 unlimited mana
becomeLight 1 extra light
showfps show frame rates
ampattspell better spell casting
assall donkey spawn
eh god mode
satan infinite health
showall shows levels triggers on screen
renderweapon make on-screen weapon invisible (toggles)
showstealth shows stealth on screen

Utterly pointless DVD cheat The Sixth Sense

In the main menu select the "Bonus Materials" option. Go to the second screen, highlight jewellery box icon and press enter. A short film created by the director as a child will screen.



THE DVD

REQUESTS

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This month, the DVD is all about realtime strategy. With both Age of Mythology and Impossible Creatures getting pride of place, you'd be almost forgiven for overlooking other awesome games such as Lord of the Rings, Platoon, Mafia, Mutant Storm and even more.

A quick word on Mutant Storm: this is the sequel to our #100 game in the Top 100, Space Tripper. If you like it, the full version can be yours for \$40, and can be downloaded from www.pompom.org.uk. Only 12MB!

Back to the DVD, we've also included the very useful Windows XP Service Pack 1 for all you modern-thinking folks with shiny new package PCs from Harvey Norman or wherever. I say that, because anyone who's a WinXP power user would surely have downloaded the SP1 already on their ADSL connection YOU BASTARDS! If not, I guess it's okay if you want to use it off our DVD too. See, PCPP, we cater to all... sorts.

Trailers are of course an important part of any gamer's diet, and we've included what is sure to become a very rare BMX XXX trailer because the OFLC has banned the game. And why? What's wrong with topless motocross where every jiggle has been lovingly rendered by industry professionals? Next thing you know, they'll be banning Postal 2 on the grounds that running around killing elderly women with flamethrowers is, I dunno, anti-social or something.

Enough of this vacuous hyperbole and on with the games. There's a lot to discover on this month's DVD, and I mean a lot. Why, I haven't even mentioned ROM's Bunker, or our massive Tribes 2 mod special, or Natural Selection for Half-Life, or (snip - Ed).

Paul Noone
cdgod@next.com.au

AGE OF MYTHOLOGY

Gods damn, it's legendary!

That's right, you heard right, Age of Mythology is here just in time for Christmas. As our glowing review states, it's simply the most refined RTS in the business, and now Bruce Shelley can rest on his enormous laurels secure in the knowledge that's he's done it again: this is the best Age game yet. And say what you like about Microsoft, they know how to throw gamers a decent demo. This one is actually worth the 300MB of precious space it takes up, as it gives you a decent chunk of story campaign, as well as a couple of multiplayer maps so you can duke it out with other fine PCPP readers. Revel in the delightful 3D graphics! Sigh as the waves break realistically on virgin shores. Goggle as the cyclops eats half your crew in one bite. Unleash wave after wave of hoppy Egyptian jackal-things, then bust a Nordic dragon in the

resource-gathering asses of your closest allies. Keeps them on their toes you see. In any case, it's all here in Age of Mythology and on the PCPP DVD. Get into it NOW!



Requires:
P3-450
64MB RAM
16MB Videocard
500MB HDD

IMPOSSIBLE CREATURES

What the hell kind of dog IS that?

Imagine, not just one quality RTS demo from Microsoft but two! And both on the one disc! Impossible Creatures is a likewise massive demo topping the scales at 300MB, which means it's exclusive to DVD this month - CDPP buyers beware! This fully-3D title from the developers of Homeworld is set in the 1930s on a chain of mysterious islands (it's never perfectly mundane islands is it?) under the evil-type control of an evil-type scientist who has been messing with stuff wot man is not meant to mess with. Enter Rex Chance, son and/or generic nephew of less-evil but no less mad scientist who went missing on afore-mentioned mysterious islands along with all his amazing gene-splicing technology. And now the fun begins! Create unique armies out

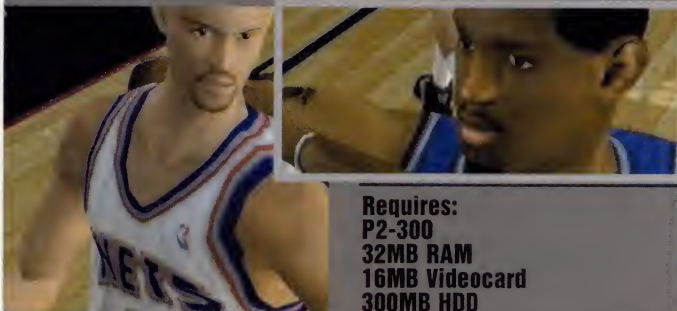
of animal parts as varied and bizarre as electric eels and flying sheep! Behold my piranha bird! James Cameron would be proud (look it up)! Like all Microsoft demos, this one is quite generous, offering a number of campaign levels, some multiplayer maps, and a selection of pre-generated mutant armies to unleash on your nearest and dearest.

Requires:
P3-667
64MB RAM
32MB Videocard
500MB HDD



NBA LIVE 2003

Are YOU a basket case?



Requires:
P2-300
32MB RAM
16MB Videocard
300MB HDD

EA Sports presents the 2003 edition of NBA Live, featuring: revolutionary new hand control, hundreds of animations - including new signature moves, "D Up" shot blocking animations, real NBA Coaches courtside and over 5000 lines of brand new commentary. From blowing down the lane with the unreal quickness of a superstar, to rising above the rim with the explosive energy of a high flying player, NBA Live 2003 lets you live your dream of NBA super-skilled superstardom. When the game's on the line, you're

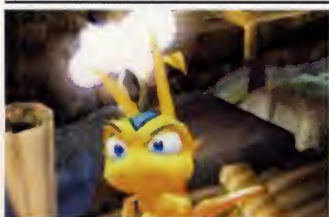
the one everyone's watching. Drain a buzzer-beating "3" and send your opponent packing. Reject a last-ditch shot by the other team's superstar and show the world you own the paint, seconds before you drown a sea of tacky sporting cliches. With totally enhanced gameplay that brings the physically challenging, fast-paced action of the NBA to life, and enhanced animations and audio that deliver the awesome drama and emotion of the NBA experience, without LIVE it's just basketball.

ZAPPER

Jiminy can kiss my grits

Zapper is like a 3-dimensional Frogger from the 80s but with a lot more on offer. It's both fun and frenetic and is the latest offering from those flipped-out Frenchies over at Infogrames. Includes such innovative schtuff as Non-Stop, Frantic Action! Totally Twisted Worlds! Hidden Areas! Eggs! Hatching Eggs! Enemies like Underwater Goats with Snorkels and Flippers! A Buffalo with an Aqualung! And Crickets! Rugged individualist, cynical, springy reflexes, yellow. This is One Wicked Cricket.

Requires:
P3-450
64MB RAM
16MB Videocard
300MB HDD



WinXP SP 1

Make your software work!

Windows XP Service Pack 1 (SP1) provides the latest security and reliability updates to the Windows XP family of operating systems, and includes Internet Explorer 6 SP1. Windows XP SP1 is designed to ensure Windows XP platform compatibility with newly released software and hardware, and includes updates that resolve many issues. To determine whether to install Windows XP SP1, we recommend reviewing the Windows XP documentation and information on their Web site BEFORE proceeding.

Requires: WinXP and 250MB HDD

NATURAL SELECTION

The Half-Life mod that EVERYONE is playing

This mod soared through the ranking on all popular sites and went straight to number one. Why? Install it and find out. Natural Selection is multiplayer-only Half-Life mod where one team plays marines and the other plays aliens. The humans must keep their cool and work together to assault an alien-infested spacecraft or colony. "First-person strategy" with a real resource model and consequences for actions. Both sides are genuinely different and together they accommodate different play styles. Nice dude, nice!



Requires:
Half-Life 1.0.1.1

PLATOON

For boys who like guns

French developer Monte Cristo brings us this tactical Vietnam war based RTS. Thundering helicopters tear through the skies overhead, wet muddy terrain sinks under your feet and tragic casualties cover the ground you crawl along. All the excitement of the big screen is finally coming to the small screen (Speak for yourself, I've got 21 inches! - Ed) in Platoon, the first action RTS set during the Vietnam War. In Platoon, you play Sgt Martin Lionsdale and take control of your own platoon throughout 12 missions, recreating some of the most infamous battles of the Vietnam war. The player controls several squads, and will manage his specialist units, which gain experience as you progress through the cinematic storyline.



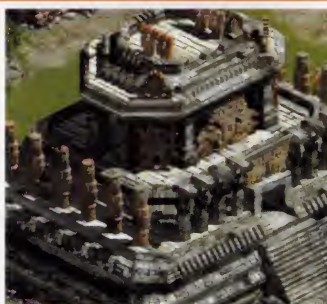
Requires:
P3-700
128MB RAM
16 MB Videocard
250MB HDD

AMERICAN CONQUEST

Dominate the dominant continent!

This game sprang from the minds of Russian developers Russobit-M. Delve into the pages of history after the discovery of the American continent by Christopher Columbus in 1492 AD. Live through 300 years of fierce armed conflict for land, riches and freedom - all in four campaigns with 30 missions. You will not survive unless you perform superb strategic feats and exhibit a true flair for diplomacy. And the best part of it all is that you can decide for yourself which side you are going to be on! Keep a cool head, especially when 16,000 soldiers are re-firing their guns on the battlefield all around you. This demo provides one single player mission and multiplayer games with 2 out of 12 nations.

Requires:
P2-233
128MB RAM
16MB Videocard
400MB HDD



TENNIS MASTERS 2003

Racket abuse, Mr McEnroe

Microids, makers of Syberia and Warrior Kings, bring you this very playable tennis sim. Tour the globe as you play on nine official stadiums of the Tennis Masters Series tournaments. From the hard courts of Indian Wells, Miami, Toronto and Cincinnati to the luxurious clay courts of Monte Carlo, Rome and Hamburg, as well as the indoor courts of Madrid and Paris. In fact it's court-tastic! Thanks to sophisticated AI programming that simulates the true reactions of the tennis players, Tennis Masters Series 2003 is very real indeed. Try to qualify for the Tennis Masters Cup in Shanghai and become World No. 1!



Requires:
P3-667
64MB RAM
16MB Videocard
100MB HDD

THE REST OF THE DVD

With more than 4GB of stuff on the DVD we can't possibly list it all here on two tiny pages. Whack the DVD in your drive and browse Paul's excellent DVD interface. Every item is given a detailed description including system requirements and a relevant URL for further web-based research! DVD PowerPlay, it's simply the best disc in the business. Enjoy it, for it is all for you!

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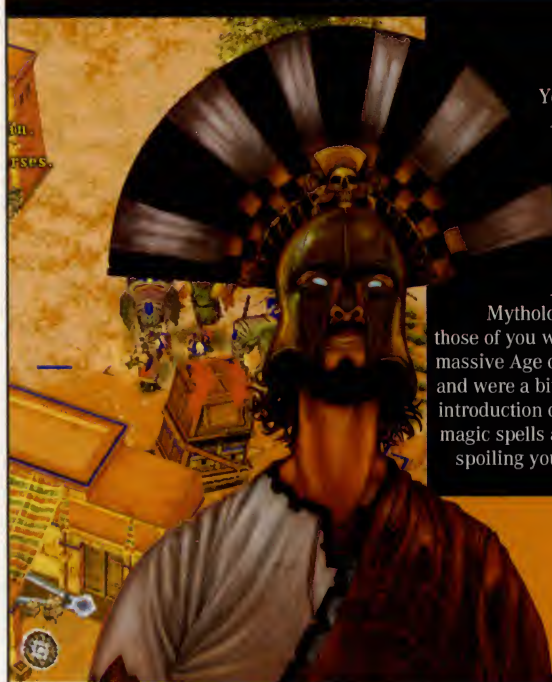
So you're still buying CD PowerPlay then are you? You mean to say that all the DVD giveaways, the drives, the discs, the massive anime collections, none of these have swayed you in your perverse determination to stick to your outdated guns and be satisfied with a mere 1.2GB of gaming goodness? We only publish once a month you know, how you're able to survive for so long with so little stuff is a mystery to me. I guess all I can do is pack on as much stuff as 2 miserable CDs will allow and ensure, as some small gesture of at least understanding if not actual sympathy, that you get at least one or two decent demos as well. But don't think that just because you get Age of Mythology, Lord of the Rings, Mafia, Mutant Storm and six other games that I'm still not going to say, again, in big letters, UPGRADE TO DVD! I swear to everything that I hold holy, my autographed Quake 3 box, my blue neon case lights, that DVD is good for you. It will make you a better person. Plus dig this, you can watch movies that your parents/partner/spouse/prudish labrador retriever wouldn't normally let you see. In the privacy of your own room! With the door locked! Can anyone say 'All night Christopher Lambert marathon?' I know I can!

Paul Noone
cdgod@next.com.au



AGE OF MYTHOLOGY

Clash of the Titans just can't compete!



Yes! At last! After... well actually not after many delays at all, pretty much spot on time,

Age of Mythology is here! For those of you who were massive Age of Kings fans and were a bit leery of the introduction of 3D graphics, magic spells and actual gods spoiling your historical

accuracy, fear not! Yes, it's a different feel, but it still seems really authentic. In famous Microsoft style, this generous demo puts you in command of a brave band of Atlanteans, home from the whatever, haunted by the foes they have vanquished and thirsty for more blood. There are also a handful of multiplayer maps that let you try out the different races against your nearest and dearest. The wait has been long and for the true believers, hard. But it's over now, AOM is here, and our evenings will never be the same again! By Zeus!

Requires:
P3-450
64MB RAM
16MB Videocard
500MB HDD

FELLOWSHIP OF THE RING

It's not Wagner, but it sure is fat

Following the storyline of J.R.R. Tolkien's The Fellowship of the Ring, this 3rd-person action/adventure lets you play as part of the fellowship on a journey from the Shire to the River Anduin. Faithful to J.R.R. Tolkien's epic masterpiece, you will explore the massive environments of Middle Earth while solving puzzles and fighting enemies such as Orcs, Black Riders, and an evil Balrog in the quest to destroy the fabled One Ring of Power. With professional voice acting, high quality cinematics, cutting edge graphics, and dynamic gameplay characteristics, Vivendi's Fellowship of the Ring is actually the official game of the book, not the official game of the movie of the book. Confused? Then play some Mutant Storm, it's bright colours promote alpha brainwave activity.



Requires:
P3-450
64MB RAM
16MB Videocard
300MB HDD

PACIFIC THEATRE

The Deadly Dozen are at it again!

Deadly Dozen: Pacific Theater (US spelling!) consists of 12 new missions encompassing key battles for the Allies in World War II. Similar to its predecessor, in this game the player is given mission goals and challenged to devise a strategy to successfully accomplish these goals. Players will face a variety of enemies during missions to Rabul, New Guinea, Guadalcanal, Iwo Jima, Okinawa plus seven other locales. The Deadly Dozen will have an impressive arsenal of weapons to assault or defend themselves against the enemies, who attack with an Arisaka Bolt-Action Rifle, Type 99 light machine gun, Samurai swords and more. It's enough to give you a case of the sweats!



Requires:
P3-550
128MB RAM,
32MB Videocard
300MB HDD

MUTANT STORM

Can ya lend us 20 cents?



RAVEN SHIELD

Shoot them in the eye!

Command an elite, multi-national squad of special operatives against a hidden terrorist foe. In Raven Shield, the third instalment to the wildly popular Rainbow Six series, RAINBOW races against time to stop terror and unravel a mystery. In locations around the world, from London to the Caribbean to Rio de Janeiro, lead team RAINBOW in a desperate effort to battle a madman and foil his doomsday plot. The game will utilize graphics technology provided by the next-generation Unreal engine to power 15 new

007 NIGHTFIRE

More! More! More sexual innuendo please!

As Bond, players operate in the snow-capped Austrian Alps and the far reaches of outer space, as well as the depths of the South Pacific. Your mission: to defeat the evil criminal mastermind Rafael Drake, the popular head of a supposedly benign environmental organisation who secretly is bent on world domination. Where do they get these original plot scenarios? Pure genius, I tell ya! NightFire offers a deep and rich gameplay experience that epitomises the Bond universe. The game is primarily seen through a fast-paced, first person perspective but switches to a dynamic third person perspective for particular interactive game mechanics, or to show off heroic Bond moments. NightFire features a large variety of missions filled with furious action and stealth, gorgeous women, exotic locales, and sophisticated spy-craft gadgetry that Bond fans have come to expect. Ah, Q. You do man!



Requires:
Windows 9x/2000/XP
PIII 700
128MB RAM

Prepare for a fantastic journey, set in over 89 levels of psychedelic 3D environments, getting ever more crowded with nasty beasts, all generated in a state-of-the-art game engine. Lose a life and watch your multipliers tumble. The beasts slow down and relax, safe in the knowledge that you are just a big softy really! The demo allows you to play 9 levels from the full game.

single-player missions that include the discovery of a cache of biological weapons and stopping an armed gang from terrorising a London bank. This multiplayer demo contains two playable levels: Prison and City Street Large. The available modes are Survival and Team Survival.

Requires:
P3-600
128MB RAM
32MB Videocard
220MB HDD

GUTTERBALL 3D

Where's the big Lebowski when you need him?

Get ready for some 3D bowling action ñ no rental shoes required! This simple little game brings back very fond memories of my younger days as an AMF hoon. Along with lawn bowls and darts, ten-pin bowling is still one of the only games left in the world where heavy drinking is both encouraged AND required. You can even guide the ball as it crashes into the pins - which kinda seems like cheating, but anyway. This demo allows 15 uses of the game. Strike it BIG with Gutterball today.

Requires:
P3-350
64MB RAM
16MB Videocard
15MB HDD



Requires:
P-233
32MB RAM
8MB Videocard
16MB HDD

Is this weird enough for ya then?

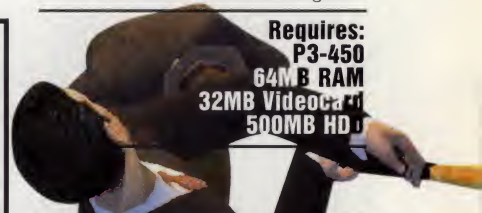
Sammy Suricate is a 3D Jump and Run game. Sammy, the hero, is a suricate (looks like a lizard who wants to be a chicken) and he has to make his way through dangerous Lion-Land. As the name says, his main enemies are lions, but not just any lions! There are Rastalions, Rocker-lions and more. Pretty dangerous folks. The object of the game is to collect a certain number of gems to leave the level, but of course there is more to explore. You have to find magic gems which open magic doors, you can use elevators to reach higher places, wasp weapons and more. Those of you who are into platform games and enjoyed games like Super Mario and Rayman will have fun with this.

MAFIA

Your name is Don too?

Mafia brings the 1930's underworld to life in this third person 3D action game. Rise from the lowly but well-dressed Footsoldier to the envied and feared Made Man in an era of big bands, zoot suits, and Model T Fords. Take on the role of a hit man, enforcer, getaway driver and more in your struggle for respect, money, and power within the Salieri Family. Illusion Softworks - creators of the award-winning Hidden & Dangerous set the story in a huge, fully-functional city, created 60 vehicles to choose from and more than 20 missions filled with non-stop action. The demo contains one mission from the full game.

Requires:
P3-450
64MB RAM
32MB Videocard
500MB HDD



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It turns out that they call Fremantle 'Freo', which is one of those things that makes you realise you should have visited the tourist website before embarking on your harrowing four-day road trip to Australia's most westerly port. People kept talking about Freo, Freo this and Freo that, and I kept half-expecting a gigantic beast with a lip to come shambling around the corner and menace the nuns sitting up the front of the bus.

This jaunt to Fremantle was my first assignment since the boots had been mysteriously and as-yet inexplicably returned to me after their loss over the Nevada desert. I had read the brief again and again, upside down, back to front, under a full moon, but it still gave me very little idea of what I was about to enter into. All it gave was a warehouse address on Mouat Street, and a promise that my expectations of gaming excellence would be "shattered". Given that the publisher was our old friends Blind Drunk, I fully intended that after the first few beers that I, if not my gaming expectations, would indeed be shattered. One way or another.

On arrival the signage for the press turned out to be surprisingly subtle, for Blind Drunk. A gigantic likeness of Dalí's melted clock hung over the cavernous entrance to the warehouse. Tape Gallery, said a discreet placard. Their little joke, I presumed.

Inside, Blind Drunk's product manager William Liability greeted me with a big handshake and an even bigger margarita. He said welcome, and though his voice was a little slurred, he went on to explain that today was the launch of a bold new gaming franchise, certainly destined to be placed right up there with the likes of Civilization, Rise of Nations and Mission Humanity. I let this last one go for the time being as William Liability more or less indicated a podium on which sat an aggressively modded AthlonXP 1700+ all done up to look like a tin of Campbell's Tomato Soup. Andy Warhol, see, I knew my pop culture.

"Welcome," said an oily gentlemen with an aggressively modded goatee done up to look like, well like an aggressively modded goatee in fact, "my name is Leard."

I asked him what was running on the tin of soup.

"It's our new title."

I wondered what it was called.

"It's called Gallery Tycoon," Leard smiled ever so slightly, "and it simulates art."

I nodded. It was all starting to fall into place. It explained the rest of the interior of the warehouse really; tasteful spotlights illuminating

piles of old newspapers tied up with string, tin baths arranged in neat rows, a whole bunch of dangling pantyhose with sand in the feet, and an entire wall filled with LED displays generating random 20 digit numbers in some attempt to explain the futility of doing anything at all, even - and especially - contemporary art.

"Consider the possibilities," Leard continued, "We have created an intensely advanced 3D engine in order to generate an accurately rendered cubic exhibition space. You can set the walls to any colour you like with the flick of a switch, you see." He demonstrated on the can of soup. It worked, the walls did change colour I had to admit as I gulped heavily on my margarita and motioned to the hovering William Liability that I'd very much like another.

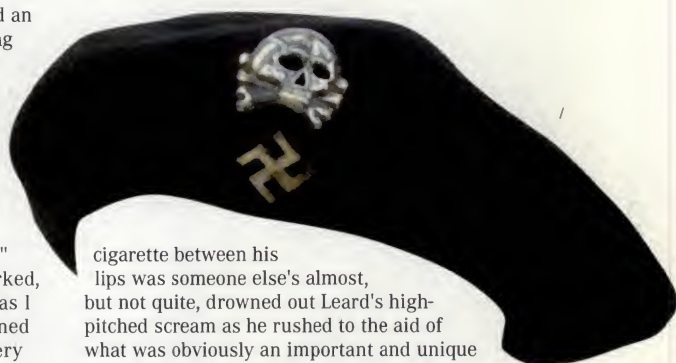
"Then you can fill your own personal space with wonderful installations," Leard went on. I wondered for a moment what the hell he was talking about until I remembered that with contemporary art, some of it was so bizarre that words like 'painting' or 'sculpture' just didn't work, so 'installation' was the only useful way to describe these frightful things. A lobster perched on a tricycle that had been spray-painted gold sat in the far corner of the warehouse slowly revolving to the recorded sound of women giving birth and seemed only to hammer home my point. Leard clicked seemingly randomly on the can of soup and surprisingly well-rendered lobsters, piles of newspapers and dangling 20-digit LEDs appeared inside the rendered cubic space.

"There's a tiresome economic management element in here too," Leard continued, "which Mr Liability here said we really must include, so you need to attract people into the gallery, charge them entrance and for catalogues, and then spend at least some of that money on complimentary cheese and biscuits. The action part of the game is where you have to prevent gallery patrons from stoning the artist to death with sourdough rolls as he gives his exhibition opening speech, much like those old Nintendo Game & Watch things that are so delightfully retro, you know, like Parachute and Fire! And whatnot."

At that moment William Liability accidentally set fire to the pile of bound-up newspapers on the far side of the warehouse exhibition space, and the sound of him loudly insisting that the lit

GALLERY TYCOON

Where too many berets are barely enough

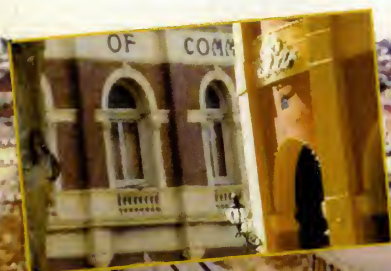


cigarette between his lips was someone else's almost, but not quite, drowned out Leard's high-pitched scream as he rushed to the aid of what was obviously an important and unique work of art and not just a tied up bunch of newspapers after all.

I poked and prodded at the can of soup PC for a bit while people ran around shrieking in the background. I quickly discovered that Gallery Tycoon actually allowed you to do a bunch of cool things, like churlishly hurl non-controversial artworks into the street to get run down by 16-wheeler semis, and then bring them back into the gallery to find they got about ten times as much attention as before. It was also possible to electrocute particularly boring-looking artists with a kind of cattle prod. And finally, there was a detailed facial hair and beret selection screen, where you could create your perfect gallery curator, kind of like making a new Sim in The Sims.

All in all, I reflected as Leard chased William Liability around the rapidly smoke-filling warehouse thrashing ineffectually at him with a lacy handkerchief, Gallery Tycoon looked like it might not be too bad a game. Expect it late 2004. Or 2005. Depending on whether or not Leard can get the exhibition space for his can of soup.

Incidentally, if you're ever in Fremantle, eat at Bridges Seafood Garden. The website says they have a kids' menu.



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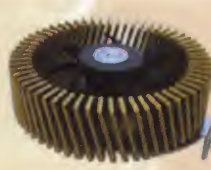
SLOT 1 GOLDEN ORB

Slot 1- Intel™ SECC II
up to 1.13 GHz



SLOT A GOLDEN ORB

Slot A- AMD K7 Athlon™
Slot A up to 1 GHz



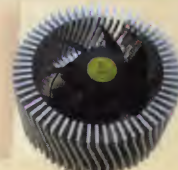
LOW PROFILE GOLDEN ORB

1U System Intel Socket 370



SUPER ORB

AMD™ SOCKET
462/A up to 1.5GHz



CHROME ORB

AMD™ ThunderBird
and all Duron processor™
up to 1.3GHz



MINI COPPER ORB

AMD™ ThunderBird and all
Duron processor™ up to 1.5GHz



DRAGON ORB 1

Designed for AMD Athlon™ XP 2000+, 1900+, 1800+,
1700+, 1600+, 1500+, AMD™ ATHLON 1.5GHz+
INTEL™ PIII 1.13GHz & TUALATIN up to 2.0GHz

DRAGON ORB 3

Designed for AMD Athlon™ XP 2000+, 1900+, 1800+,
1700+, 1600+, 1500+, AMD™ ATHLON 1.5GHz+
INTEL™ PIII 1.13GHz & TUALATIN up to 2.0GHz

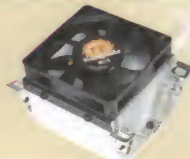


STORM FAN UPGRADE FAN

HEATSINK FANS

VOLCANO 2

VOLCANO II
For AMD Socket
462 UPTO 1.5 GHz



VOLCANO P4 478

Designed for INTEL™ P4
SOCKET 478 UPTO 2.4GHz

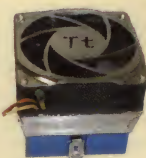
VOLCANO 6 / VOLCANO 6+

for AMD Athlon™:
XP 2100+, 2000+,
1900+, 1800+,
1700+, 1600+,
1500+ INTEL PIII
1.13GHz & TUALATIN
up to 2.0GHz



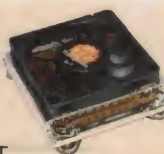
VOLCANO 7

Qualified for
AMD AthlonX
P series up to
2000+ or
INTEL Socket
370 & AMD
Socket 462



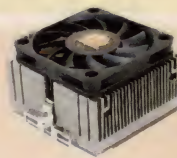
VOLCANO 7+

Application for
AMD 462 Athlon
XP 2600+ &
Intel 370 PIII or
application for
INTEL P4 SOCKET
478 upto 3.0 GHz



RACK MOUNT INTEL 478 COOLER

for INTEL P4 478
PIN 1U Rack
Mount system up
to 2.0GHz

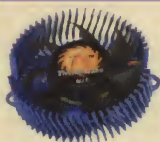


VOLCANO 8
APPLICATION
for AMD ATHLON
XP UP TO 2200+



VOLCANO 9
SILENT SMART
CASE FAN 3 IN 1
FEATURE

CHIPSET COOLERS



BLUE ORB

Blue Orb For Chipset
Cooler GFORCE 2,3DFX



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GeForce 2 Series, GeForce 3
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HARDCANOS



HARDCANO-3

HardCano 3 Hard
Disk Drive Cooler
w/ Aluminium "U-Type"
LCD Temp. Monitor



HARDCANO-5

HardCano 5 Hard
Disk Drive Cooler
Aluminium "U-Type"
LCD Temp. Monitor
with Fan Speed
Setting Controller

CASE FANS



SMART CASE FAN

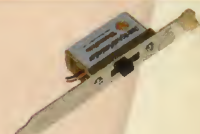
2 SPEED SMART FAN



SMART CASE FAN 2

GRADUAL SPEED
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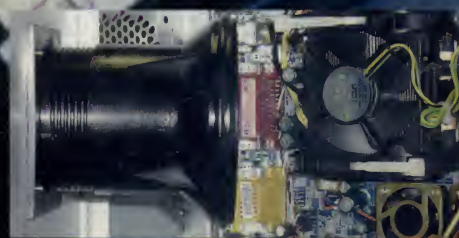
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